

RF

TEST REPORT

ISSUED BY
Shenzhen BALUN Technology Co., Ltd.



FOR

Hub M2

ISSUED TO
Konec Home Pty Ltd

Suite 5.02 level 5 15 Talavera Road Macquarie Park NSW 2113 Australia



Tested by:

Ye Hongji

Date

Aug. 12, 2021

Approved by:

Wei Yanquan

(Chief Engineer)

Date

Aug. 12, 2021

Report No.: BL-SZ2140980-602

EUT Name: Hub M2

Model Name: HM2-G01

Brand Name: Aqara

Test Standard: AS/NZS 4268:2017 (refer section 3)

Test Conclusion: Pass

Test Date: Apr. 28, 2021 ~ Jul. 16, 2021

Date of Issue: Aug. 12, 2021

NOTE: This test report of test results only related to testing samples, which can be duplicated completely for the legal use with the approval of the applicant; it shall not be reproduced except in full, without the written approval of Shenzhen BALUN Technology Co., Ltd. BALUN Laboratory. Any objections should be raised within thirty days from the date of issue. To validate the report, please contact us.

Revision History

Version	Issue Date	Revisions Content
<u>Rev. 01</u>	<u>Aug. 12, 2021</u>	<u>Initial Issue</u>

TABLE OF CONTENTS

1	ADMINISTRATIVE DATA (GENERAL INFORMATION)	4
1.1	Identification of the Testing Laboratory	4
1.2	Identification of the Responsible Testing Location	4
1.3	Laboratory Condition	4
1.4	Announce	4
2	PRODUCT INFORMATION	5
2.1	Applicant Information	5
2.2	Manufacturer Information	5
2.3	Factory Information	5
2.4	General Description for Equipment under Test (EUT)	5
2.5	Technical Information	6
2.6	Additional Instructions	9
3	SUMMARY OF TEST RESULTS	11
4	GENERAL TEST CONFIGURATIONS	12
4.1	Test Environments	12
4.2	Test Equipment List	12
4.3	Test Software List	12
4.4	Measurement Uncertainty	13
4.4.1	Description of Test SetupFor Conducted Test	13
4.4.2	For Radiated Test	14
4.4.3	For Receiver Blocking Test	15
5	Test Type and Test Results	16
5.1	Transmitter Parameters	16
5.1.1	RF output power	16
5.1.2	Power Spectral Density	17

5.1.3	Duty Cycle, Tx-sequence, Tx-gap	18
5.1.4	Medium Utilisation (MU) factor	19
5.1.5	Adaptivity (adptive equipment using modulations other than FHSS)	20
5.1.6	Occupied Channel Bandwidth	22
5.1.7	Transmitter unwanted emissions in the out-of-band domain	23
5.1.8	Transmitter unwanted emissions in the spurious domain	24
5.2	Receiver Parameters	25
5.2.1	Receiver Spurious Emissions	25
5.2.2	Receiver Blocking	26
5.3	Other Parameters	28
5.3.1	Geo-location capability	28
ANNEX A	TEST RESULT	29
A.1	RF output power	29
A.2	Power spectral density	37
A.3	Duty Cycle, Tx-sequence, Tx-gap	40
A.4	Medium Utilisation (MU) factor	40
A.5	Adaptivity (adaptive equipment using modulations other than FHSS)	41
A.6	Occupied Channel Bandwidth	51
A.7	Transmitter unwanted emissions in the out-of-band domain	54
A.8	Transmitter Spurious Emissions	86
A.9	Receiver Spurious Emissions	113
A.10	Receiver Blocking	140
ANNEX B	TEST SETUP PHOTOS	141
ANNEX C	EUT EXTERNAL PHOTOS	141
ANNEX D	EUT INTERNAL PHOTOS	141

1 ADMINISTRATIVE DATA (GENERAL INFORMATION)

1.1 Identification of the Testing Laboratory

Company Name	Shenzhen BALUN Technology Co., Ltd.
Address	Block B, 1st FL, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
Phone Number	+86 755 6685 0100

1.2 Identification of the Responsible Testing Location

Test Location	Shenzhen BALUN Technology Co., Ltd.
Address	Block B, 1st FL, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
Description	All measurement facilities used to collect the measurement data are located at Block B, FL 1, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China 518055

1.3 Laboratory Condition

Ambient Temperature	20°C to 25°C
Ambient Relative Humidity	45% to 55%
Ambient Pressure	100 kPa to 102 kPa

1.4 Announce

- (1) The test report refer to the BALUN report mode v1.2.
- (2) The test report is invalid if not marked with the signatures of the persons responsible for preparing and approving the test report.
- (3) The test report is invalid if there is any evidence and/or falsification.
- (4) The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein.
- (5) This document may not be altered or revised in any way unless done so by BALUN and all revisions are duly noted in the revisions section.
- (6) Content of the test report, in part or in full, cannot be used for publicity and/or promotional purposes without prior written approval from the laboratory.

2 PRODUCT INFORMATION

2.1 Applicant Information

Applicant	Konec Home Pty Ltd
Address	Suite 5.02 level 5 15 Talavera Road Macquarie Park NSW 2113 Australia

2.2 Manufacturer Information

Manufacturer	Lumi United Technology Co., Ltd
Address	8th Floor, JinQi Wisdom Valley, No.1 Tangling Road, Liuxian Ave, Taoyuan Residential District, Nanshan District, Shenzhen, China

2.3 Factory Information

Factory	N/A
Address	N/A

2.4 General Description for Equipment under Test (EUT)

EUT Name	Hub M2
Under Test Model Name	HM2-G01
Series Model Name	N/A
Description of Model name differentiation	N/A
Hardware Version	V1.1.0
Software Version	3.0.6_0005.0515
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A

2.5 Technical Information

EUT Type	Stand-alone equipment
Network and Wireless connectivity	Zigbee, Bluetooth BLE Wi-Fi 802.11b, 802.11g, 802.11n(HT20/40)

The requirement for the following technical information of the EUT was tested in this report:

Frequency Range		802.11b/g/n(20 MHz): 2.412 GHz - 2.472 GHz f _c = 2412 MHz + (N-1)*5 MHz, where - f _c = “Operating Frequency” in MHz, - N = “Channel Number” with the range from 1 to 13. 802.11n(40 MHz): 2.422 GHz - 2.462 GHz f _c = 2412 MHz + (N-1)*5 MHz, where - f _c = “Operating Frequency” in MHz, - N = “Channel Number” with the range from 3 to 11.
Modulation Type		DSSS, OFDM
Equipment Type (LBT / non- LBT)		LBT based Detect and Avoid
Adaptive or non-adaptive		Adaptive
LBT Based		Yes (Load Based)
Geo-location Capability		Declared by manufacturer
Antenna System (eg., MIMO, Smart Antenna)		Cyclic Delay Diversity (CDD)
Categorization as Correlated or Completely Uncorrelated		Correlated
Antenna Type	Main Antenna	PCB Antenna
	Aux. Antenna	
Antenna Gain	Main Antenna	2 dBi (In test items related to antenna gain, the final results reflect this figure. This value is provided by the applicant.)
	Aux. Antenna	2 dBi (In test items related to antenna gain, the final results reflect this figure. This value is provided by the applicant.)
Beamforming Gain		N/A
The Max RF Output power		18.3 dBm
Receiver Category		1

Mode	Antenna		
	Main Antenna	Aux. Antenna	MIMO
802.11b	√	√	-
802.11g	√	√	-
802.11n20	√	√	√
802.11n40	√	√	√

Note: All the configurations were tested, but only the worst case was reported in this report.

Modulation technology	Modulation Type	Transfer Rate (Mbps)(Single RF path)
DSSS (802.11b)	DBPSK	1
	DQPSK	2
	CCK	5.5/ 11
OFDM (802.11g)	BPSK	6 / 9
	QPSK	12 / 18
	16QAM	24 / 36
	64QAM	48 / 54
OFDM (802.11n-20 MHz)	BPSK	6.5
	QPSK	13/19.5
	16QAM	26/39
	64QAM	52/58.5/65
OFDM (802.11n-40 MHz)	BPSK	13.5
	QPSK	27/40.5
	16QAM	54/81/108
	64QAM	121.5/135

Note: Preliminary tests were performed in different data rate in above table to find the worst radiated emission. The data rate shown in the table below is the worst-case rate with respect to the specific test item. Investigation has been done on all the possible configurations for searching the worst cases. The following table is a list of the test modes shown in this test report.

Test Items	Mode	Data Rate	Channel	
RF output power	11b/11g/11n20/11n40	1/6/6.5/13.5 Mbps	1/7/13	3/7/11
Power Spectral Density	11b/11g/11n20/11n40	1/6/6.5/13.5 Mbps	1/7/13	3/7/11
Adaptivity (adptive equipment using modulations other than FHSS)	11b/11g/11n20/11n40	1/6/6.5/13.5 Mbps	1/13	3/11
Transmitter unwanted emissions in the out-of-band domain	11b/11g/11n20/11n40	1/6/6.5/13.5 Mbps	1/13	3/11
Transmitter unwanted emissions in the spurious domain	11b/11g/11n20/11n40	1/6/6.5/13.5 Mbps	1/13	3/11
Receiver spurious emissions	11b/11g/11n20/11n40	1/6/6.5/13.5 Mbps	1/13	3/11
Receiver Blocking	11b	1 Mbps	1/13	

Mode	Channel	Channel Number	Frequency (MHz)
11b	HIIGH/MIDDLE/LOW(H/M/L)	13/7/1	2472/2442/2412
11g	HIIGH/MIDDLE/LOW(H/M/L)	13/7/1	2472/2442/2412
11n20	HIIGH/MIDDLE/LOW(H/M/L)	13/7/1	2472/2442/2412
11n40	HIIGH/MIDDLE/LOW(H/M/L)	11/7/3	2462/2442/2422

2.6 Additional Instructions

EUT Software Settings:

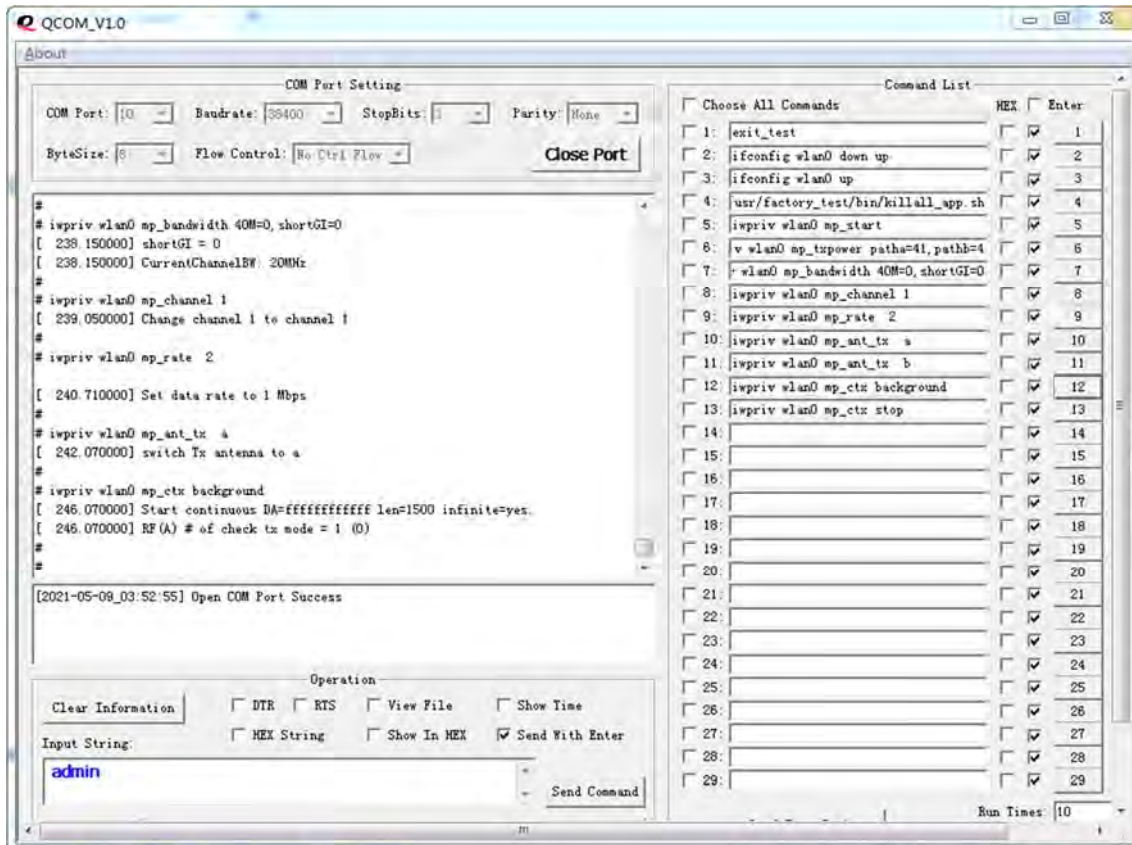
Mode	<input checked="" type="checkbox"/> Special software is used. The software provided by client to enable the EUT under transmission condition continuously at specific channel frequencies individually.
------	--

During testing, Channel and Power Controlling Software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product.

EUT Software Settings:

Power level setup in software					
Test Software Version	QCOM_V1.0				
Support Units (Software installation media)	Description	Manufacturer		Model	
	Notebook	Dell		X220	
Mode	Channel	Soft Set			
		Main Antenna	Aux. Antenna	MIMO-Main Antenna	MIMO-Aux. Antenna
802.11b	CH1	39	38	-	-
	CH7	40	39	-	-
	CH13	41	40	-	-
802.11g	CH1	38	37	-	-
	CH7	39	38	-	-
	CH13	40	39	-	-
802.11n20	CH1	38	37	38	37
	CH7	39	38	39	38
	CH13	40	39	40	39
802.11n40	CH3	38	37	38	37
	CH7	39	38	39	38
	CH11	40	39	40	39

Run software:



3 SUMMARY OF TEST RESULTS

No.	Identity	Document Title
1	AS/NZS 4268:2017	Radio equipment and systems - Short range devices - Limits and methods of measurement
2	ETSI EN 300 328 V2.GG(201J-07)	Wideband transmission systems; Data transmission equipment operating in the 2,4 GHz ISM band and using wide band modulation techniques; Harmonised Standard covering the essential requirements of article 3.2 of Directive 2014/53/EU

Test items and the results are as follows:

Report Section	Standard Rule	Description	Channel	Test Result	Verdict	Remark
5.1.1	4.3.2.2	RF output power	Low/Middle/High	ANNEX A.1	Pass	--
5.1.2	4.3.2.3	Power Spectral Density	Low/Middle/High	ANNEX A.2	Pass	--
5.1.3	4.3.2.4	Duty Cycle, Tx-sequence, Tx-gap	--	ANNEX A.3	N/A	Note ¹ , Note ²
5.1.4	4.3.2.5	Medium Utilisation (MU) factor	--	ANNEX A.4	N/A	Note ¹ , Note ²
5.1.5	4.3.2.6	Adaptivity (adaptive equipment using modulations other than FHSS)	Low/ High	ANNEX A.5	Pass	Note ² , Note ³
5.1.6	4.3.2.7	Occupied Channel Bandwidth	Low/ High	ANNEX A.6	Pass	--
5.1.7	4.3.2.8	Transmitter unwanted emissions in the out-of-band domain	Low/ High	ANNEX A.7	Pass	--
5.1.8	4.3.2.9	Transmitter unwanted emissions in the spurious domain	Low/ High	ANNEX A.8	Pass	--
5.2.1	4.3.2.10	Receiver spurious emissions	Low/ High	ANNEX A.9	Pass	--
5.2.2	4.3.2.11	Receiver Blocking	Low/ High	ANNEX A.10	Pass	--
5.3.1	4.3.2.12	Geo-location capability	--	ANNEX A.11	Pass	--

Note ¹: This requirement apply to non-adaptive equipment or to adaptive equipment when operating in a non-adaptive mode. The equipment is using wide band modulations other than FHSS.

Note ²: This requirement do not apply for equipment with a maximum declared RF Output power level of less than 10 dBm e.i.r.p. or for equipment when operating in a mode where the RF Output power is less than 10 dBm e.i.r.p.

Note ³: This requirement does not apply to non-adaptive equipment or adaptive equipment operating in a non-adaptive mode.

4 GENERAL TEST CONFIGURATIONS

4.1 Test Environments

During the measurement, the normal environmental conditions were within the listed ranges:

Relative Humidity	45% to 55%	
Atmospheric Pressure	100 kPa to 102 kPa	
Temperature	NT (Normal Temperature)	+22°C to +25°C
	LT (Low Temperature)	-10°C
	HT (High Temperature)	+40°C
Working Voltage of the EUT	NV (Normal Voltage)	3.7 V

4.2 Test Equipment List

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
Spectrum Analyzer	ROHDE&SCHWARZ	FSV-30	103118	2021.06.01	2022.05.31
Spectrum Analyzer	KEYSIGHT	N9020A	MY56060183	2020.09.25	2021.09.24
Vector Signal Generator	ROHDE&SCHWARZ	SMBV100A	260592	2021.06.01	2022.05.31
Signal Generator	ROHDE&SCHWARZ	SMB100A	177746	2021.06.01	2022.05.31
Switch Unit with OSP-B157	ROHDE&SCHWARZ	OSP120	101270	2021.06.01	2022.05.31
Bluetooth Signaling Unit	ROHDE&SCHWARZ	CMW270	100607	2021.06.01	2022.05.31
Bluetooth Signaling Unit	ROHDE&SCHWARZ	CMW500	142028	2021.06.01	2022.05.31
DC Power Supply	ITECH	IT6720	60010301071 7610007	2020.09.25	2021.09.24
Temperature Chamber	AHK	NTH64-40A	1310	2021.01.14	2022.01.03
EMI Receiver	KEYSIGHT	N9038A	MY53220118	2021.06.01	2022.05.31
Test Antenna-Loop(9 kHz-30 MHz)	SCHWARZBECK	FMZB 1519	1519-037	2019.10.29	2021.10.28
Test Antenna-Bi-Log(30 MHz-3 GHz)	SCHWARZBECK	VULB 9163	9163-624	2019.07.02	2022.07.01
Test Antenna-Horn(1-18 GHz)	SCHWARZBECK	BBHA 9120D	9120D-1917	2019.07.02	2022.07.01
Test Antenna-Horn (18-40 GHz)	A-INFO	LB-180400KF	J211060273	2021.01.05	2023.01.04
Anechoic Chamber	RAINFORD	9m*6m*6m	N/A	2017.02.21	2022.02.20

4.3 Test Software List

Description	Manufacturer	Software Version	Serial No.
TS8997 EMC32	ROHDE&SCHWARZ	V10.00.00	N/A

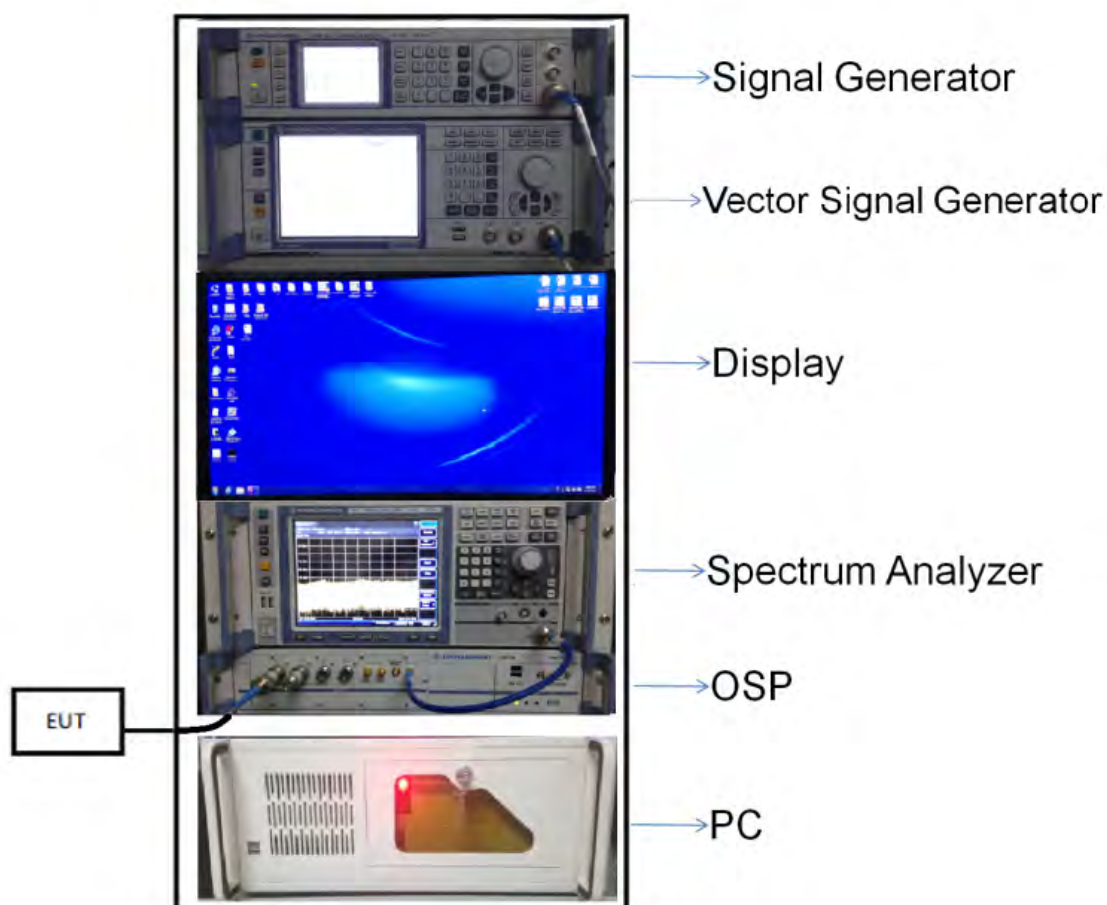
4.4 Measurement Uncertainty

The following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2.

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$.

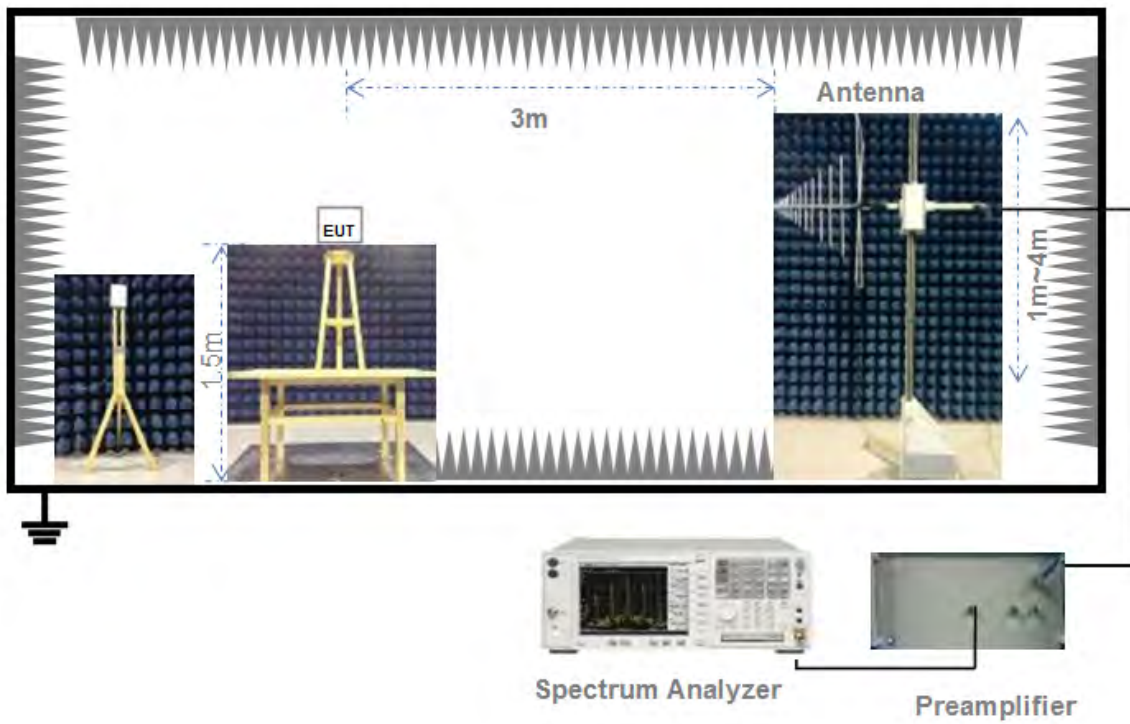
Measurement	Value
Occupied Channel Bandwidth	$\pm 3.6 \%$
RF output power, conducted	$\pm 0.66 \text{ dB}$
Power Spectral Density, conducted	$\pm 0.90 \text{ dB}$
Unwanted Emissions, conducted	$\pm 1.78 \text{ dB}$
All emissions, radiated	$\pm 5.36 \text{ dB}$
Temperature	$\pm 0.82 \text{ }^{\circ}\text{C}$
Humidity	$\pm 4.1 \%$

4.4.1 Description of Test Setup For Conducted Test

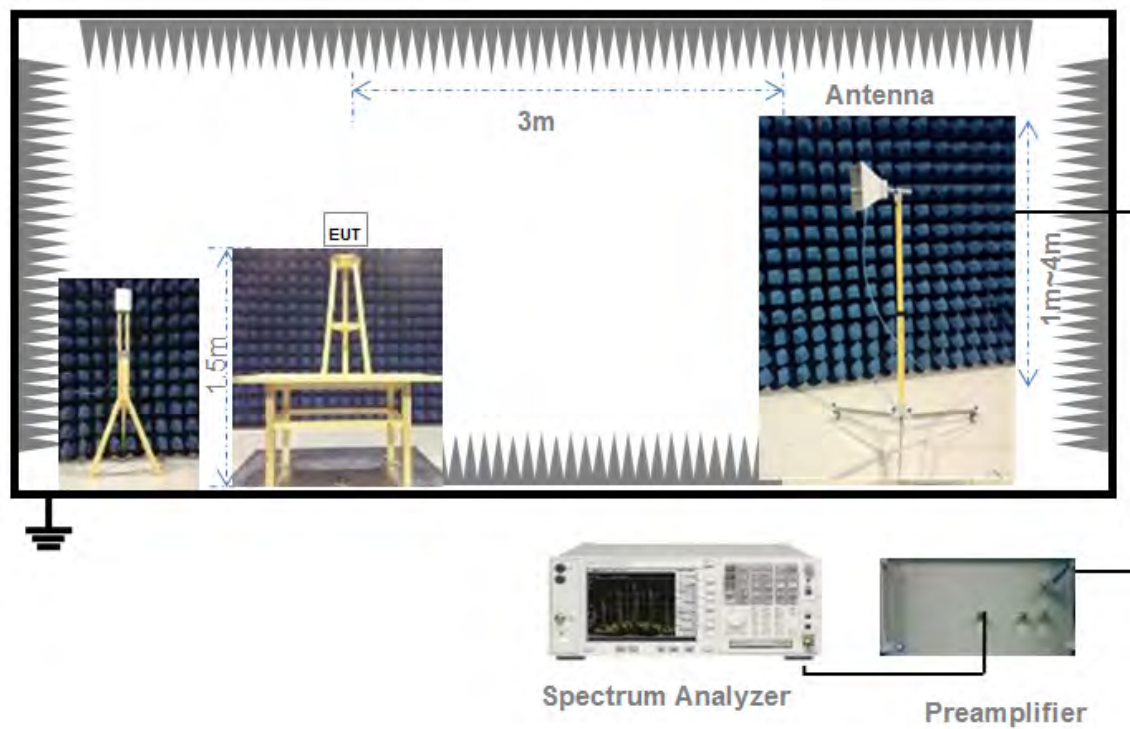


(Diagram 1)

4.4.2 For Radiated Test

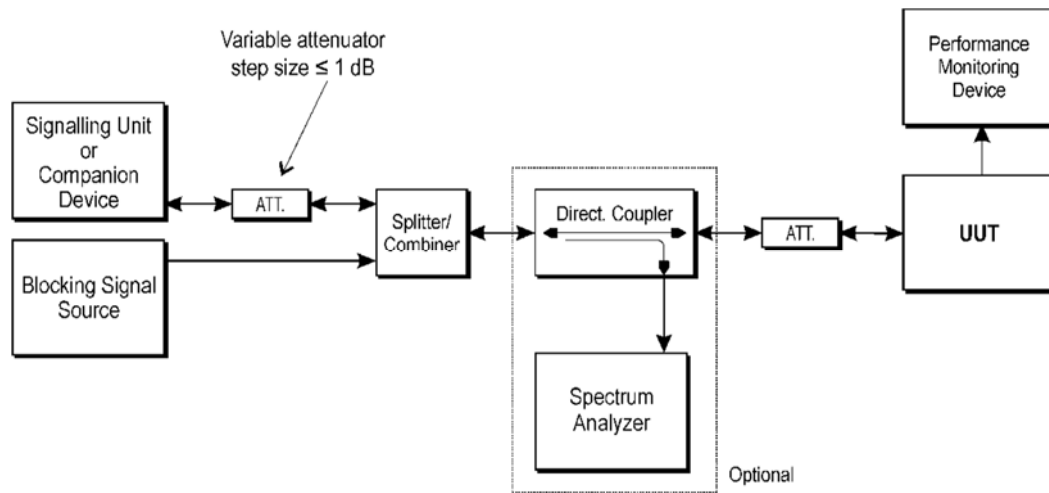


(Diagram 2)



(Diagram 3)

4.4.3 For Receiver Blocking Test



(Diagram 4)

5 Test Type and Test Results

5.1 Transmitter Parameters

5.1.1 RF output power

5.1.1.1 Limit

The maximum RF output power shall be equal to or less than 20 dBm.

5.1.1.2 Test Setup

The section 4.5.1 (Diagram 1) test setup description was used for this test. The photo of test setup please refer to ANNEX B.

5.1.1.3 Test Procedure

Reference to ETSI EN 300 328 V2.1.1 clause 5.4.2.2.

5.1.1.4 Test Result

Please refer to ANNEX A.1.

5.1.2 Power Spectral Density

5.1.2.1 Limit

For equipment using wide band modulations other than FHSS, the maximum Power Spectral Density is limited to 10 dBm per MHz.

5.1.2.2 Test Setup

The section 4.5.1 (Diagram 1) test setup description was used for this test. The photo of test setup please refer to ANNEX B.

5.1.2.3 Test Procedure

T Reference to ETSI EN 300 328 V2.1.1 clause 5.4.3.2.

5.1.2.4 Test Result

Please refer to ANNEX A.2.

5.1.3 Duty Cycle, Tx-sequence, Tx-gap

5.1.3.1 Limit

The Duty Cycle shall be equal to or less than the maximum value declared by the supplier.

The maximum Tx-sequence Time and the minimum Tx-gap Time shall be according to the formula below:

Maximum Tx-Sequence Time = Minimum Tx-gap Time = M. where M is in the range of 3.5 ms to 10 ms.

5.1.3.2 Test Setup

The section 4.5.1 (Diagram 1) test setup description was used for this test.

5.1.3.3 Test Procedure

Reference to ETSI EN 300 328 V2.1.1 clause 5.4.2.2.

5.1.3.4 Test Result

Please refer to ANNEX A.3.

.

5.1.4 Medium Utilisation (MU) factor

5.1.4.1 Limit

For non-adaptive equipment using wide band modulations other than FHSS, the maximum Medium Utilisation factor shall be 10 %.

5.1.4.2 Test Setup

The section 4.5.1 (Diagram 1) test setup description was used for this test.

5.1.4.3 Test Procedure

Reference to ETSI EN 300 328 V2.1.1 clause 5.4.2.2.

5.1.4.4 Test Procedure

Please refer to ANNEX A.4.

5.1.5 Adaptivity (adaptive equipment using modulations other than FHSS)

5.1.5.1 Limit

Requirement	Operational Mode			
	Non-LBT based Detect and Avoid	LBT based Detect and Avoid		
		Frame Based Equipment	Load Based Equipment (CCA using 'energy detect')	Load Based Equipment (CCA not using any of the mechanisms referenced as Note ²)
Minimum Clear Channel Assessment (CCA) Time	NA	18 us (see Note ¹)	(see Note ²)	18 us (see Note ¹)
Maximum Channel Occupancy (COT) Time	40 ms	1 ms to 10 ms	(see Note ²)	13 ms
Minimum Idle Period	5% of COT	5% of COT	(see Note ²)	NA
Extended CCA check	NA	NA	(see Note ²)	a random duration in the range between 18 µs and at least 160 µs
Short Control Signalling Transmissions	Maximum duty cycle of 10 % within an observation period of 50 ms (see Note ³)			

Note ¹: The CCA time used by the equipment shall be declared by the supplier.

Note ²: Load Based Equipment may implement an LBT based spectrum sharing mechanism based on the Clear Channel Assessment (CCA) mode using energy detect, as described in IEEE 802.11™-2012 [i.3] clause 9, clause 10, clause 16, clause 17, clause 19 and clause 20, or in IEEE 802.15.4™-2011 [i.4], clause 4, clause 5 and clause 8.

Note ³: Adaptive equipment may or may not have Short Control Signaling Transmissions.

Interference threshold level:

Maximum transmit power (P _H) EIRP dBm	Threshold level (TL)
20	-70 dBm / MHz
Note ¹ : $TL = -70 \text{ dBm/MHz} + 10 \times \log_{10} (100 \text{ mW} / P_{out})$ (P _{out} in mW e.i.r.p.). Note ² : transmitter the CCA threshold level (TL) shall be equal or lower than -70 dBm/MHz at the input to the receiver (assuming a 0 dBi receive antenna).	

Unwanted Signal parameters

Wanted signal mean power from companion device	Unwanted signal frequency (MHz)	Unwanted CW signal power (dBm)
sufficient to maintain the link (see Note ²)	2 395 or 2 488,5 (see Note ¹)	-35 (see Note ³)
Note ¹ : The highest frequency shall be used for testing operating channels within the range 2400 MHz to 2442 MHz, while the lowest frequency shall be used for testing operating channels within the range 2 442 MHz to 2 483.5 MHz. See clause 5.4.6.1. Note ² : A typical value which can be used in most cases is -50 dBm/MHz. Note ³ : The level specified is the level in front of the UUT antenna. In case of conducted measurements, this level has to be corrected by the actual antenna assembly gain.		

5.1.5.2 Test Setup

The section 4.5.1 (Diagram 1) test setup description was used for this test. The photo of test setup please refer to ANNEX B.

5.1.5.3 Test Procedure

Reference to ETSI EN 300 328 V2.1.1 clause 5.4.6.2.

5.1.5.4 Test Result

Please refer to ANNEX A.5.

5.1.6 Occupied Channel Bandwidth

5.1.6.1 Limit

The Occupied Channel Bandwidth for each hopping frequency shall fall completely within the band 2400 MHz to 2483.5 MHz.

In addition, for non-adaptive systems using wide band modulations other than FHSS and with e.i.r.p greater than 10 dBm, the occupied channel bandwidth shall be less than 20 MHz.

5.1.6.2 Test Setup

The section 4.5.1 (Diagram 1) test setup description was used for this test. The photo of test setup please refer to ANNEX B.

5.1.6.3 Test Procedure

Reference to ETSI EN 300 328 V2.1.1 clause 5.4.7.2.

5.1.6.4 Test Result

Please refer to ANNEX A.6.

5.1.7 Transmitter unwanted emissions in the out-of-band domain

5.1.7.1 Limit

The transmitter unwanted emissions in the out-of-band domain but outside the allocated band, shall not exceed the values provided by the mask in figure 1.

NOTE: Within the 2 400 MHz to 2 483,5 MHz band, the Out-of-band emissions are fulfilled by compliance with the Occupied Channel Bandwidth requirement in §2.4 in this report.

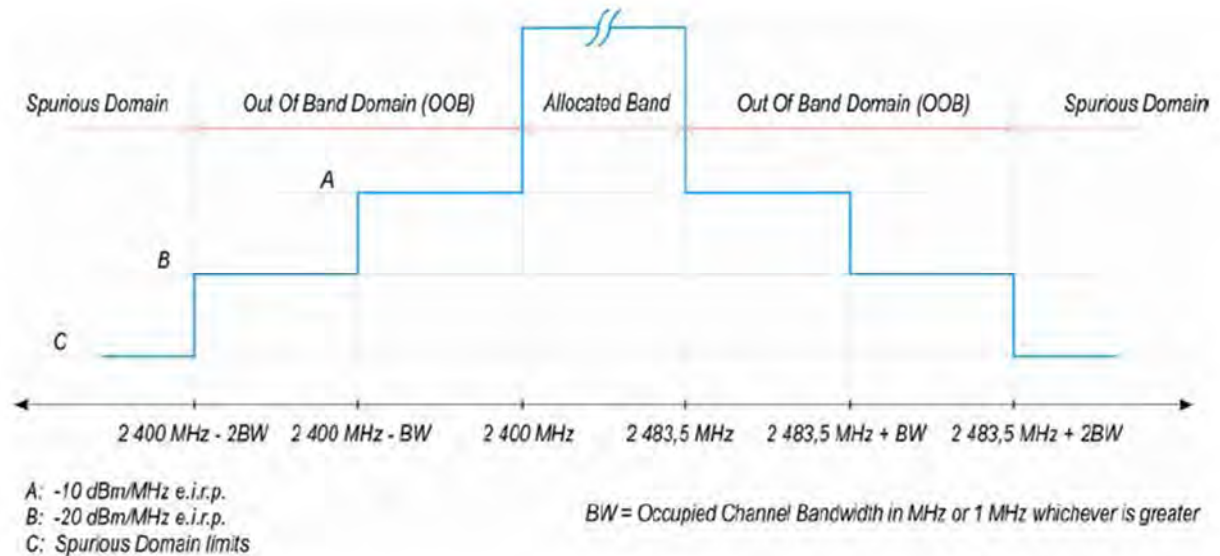


Figure 1: Transmit mask

5.1.7.2 Test Setup

The section 4.5.1 (Diagram 1) test setup description was used for this test. The photo of test setup please refer to ANNEX B.

5.1.7.3 Test Procedure

Reference to ETSI EN 300 328 V2.1.1 clause 5.4.8.2.

5.1.7.4 Test Result

Please refer to ANNEX A.7.

5.1.8 Transmitter unwanted emissions in the spurious domain

5.1.8.1 Limit

The transmitter unwanted emissions in the spurious domain shall not exceed the values in following tables:

Frequency range	Maximum power (dBm)	Bandwidth
30 MHz to 47 MHz	-36	100 kHz
47 MHz to 74 MHz	-54	100 kHz
74 MHz to 87.5 MHz	-36	100 kHz
87.5 MHz to 118 MHz	-54	100 kHz
118 MHz to 174 MHz	-36	100 kHz
174 MHz to 230 MHz	-54	100 kHz
230 MHz to 470 MHz	-36	100 kHz
470 MHz to 862 MHz	-54	100 kHz
862 MHz to 1 GHz	-36	100 kHz
1 GHz to 12.75 GHz	-30	1 MHz

5.1.8.2 Test Setup

See the section 4.5.1 and 4.5.2 (Diagram 1, 2, 3) for test setup description. The photo of test setup please refer to ANNEX B.

5.1.8.3 Test Procedure

Reference to ETSI EN 300 328 V2.1.1 clause 5.4.9.2.

5.1.8.4 Test Result

Please refer to ANNEX A.8.

5.2 Receiver Parameters

5.2.1 Receiver Spurious Emissions

5.2.1.1 Limit

Receiver spurious emissions are emissions at any frequency when the equipment is in receive mode.

The spurious emissions of the transmitter shall not exceed the values in following tables for the EUT in this report.

Frequency range	Maximum power (dBm)	Bandwidth
30 MHz to 1 GHz	-57	100 KHz
1 GHz to 12.75 GHz	-47	1 MHz

5.2.1.2 Test Setup

See the section 4.5.1 (Diagram 1) for test setup description. The photo of test setup please refer to ANNEX B.

5.2.1.3 Test Procedure

Reference to ETSI EN 300 328 V2.1.1 clause 5.4.10.2.

5.2.1.4 Test Result

Please refer to ANNEX A.9.

5.2.2 Receiver Blocking

Limit

While maintaining the minimum performance criteria as defined in clause 4.3.1.12.3, the blocking levels at specified frequency offsets shall be equal to or greater than the limits defined for the applicable receiver category provided in table 6, table 7 or table 8.

Receiver Category 1 equipment

Wanted signal mean power from companion device (dBm)	Blocking signal frequency(MHz)	Blocking signal power (dBm) (see Note ²)	Type of blocking signal
Pmin + 6 dB	2 380	-53	CW
	2 503.5	-53	CW
Pmin + 6 dB	2 300	-47	CW
	2 330	-47	CW
	2 360	-47	CW
Pmin + 6 dB	2 523.5	-47	CW
	2 553.5	-47	CW
	2 583.5	-47	CW
	2 613.5	-47	CW
	2 643.5	-47	CW
	2 673.5	-47	CW
<p>Note ¹: Pmin is the minimum level of wanted signal (in dBm) required to meet the minimum performance criteria as defined in clause 4.3.1.12.3 in the absence of any blocking signal.</p> <p>Note ²: The levels specified are levels in front of the UUT antenna. In case of conducted measurements, the levels have to be corrected by the actual antenna assembly gain.</p>			

Receiver Category 2 equipment

Wanted signal mean power from companion device (dBm)	Blocking signal frequency(MHz)	Blocking signal power (dBm) (see Note ²)	Type of blocking signal
Pmin + 6 dB	2 380	-57	CW
	2 503.5	-57	CW
Pmin + 6 dB	2 300	-47	CW
	2 583.5	-47	CW
<p>Note ¹: Pmin is the minimum level of the wanted signal (in dBm) required to meet the minimum performance criteria as defined in clause 4.3.1.12.3 in the absence of any blocking signal.</p> <p>Note ²: The levels specified are levels in front of the UUT antenna. In case of conducted measurements, the levels have to be corrected by the actual antenna assembly gain.</p>			

Receiver Category 3 equipment

Wanted signal mean power from companion device (dBm)	Blocking signal frequency(MHz)	Blocking signal power (dBm) (see Note ²)	Type of blocking signal
Pmin + 12 dB	2 380	-57	CW
	2 503.5	-57	CW
Pmin + 12 dB	2 300	-47	CW
	2 583.5	-47	CW
<p>Note ¹: Pmin is the minimum level of the wanted signal (in dBm) required to meet the minimum performance criteria as defined in clause 4.3.1.12.3 in the absence of any blocking signal.</p> <p>Note ² : The levels specified are levels in front of the UUT antenna. In case of conducted measurements, the levels have to be corrected by the actual antenna assembly gain.</p>			

Categorization

Receiver category	Definition
1	Adaptive equipment with a maximum RF output power greater than 10 dBm e.i.r.p. shall be considered as receiver category 1 equipment.
2	Non-adaptive equipment with a Medium Utilization (MU) factor greater than 1 % and less than or equal to 10 % or adaptive equipment with a maximum RF output power of 10 dBm e.i.r.p. shall be considered as receiver category 2 equipment.
3	Non-adaptive equipment with a maximum Medium Utilization (MU) factor of 1 % or adaptive equipment with a maximum RF output power of 0 dBm e.i.r.p. shall be considered as receiver category 3 equipment

5.2.2.1 Test Setup

See the section 4.5.3 (Diagram 4) for test setup description. The photo of test setup please refer to ANNEX B.

5.2.2.2 Test Procedure

Reference to ETSI EN 300 328 V2.1.1 clause 5.4.11.2.

5.2.2.3 Test Result

Please refer to ANNEX A.10.

5.3 Other Parameters

5.3.1 Geo-location capability

5.3.1.1 Requirements

The geographical location determined by the equipment as defined in following section (4.3.1.13.2) shall not be accessible to the user.

5.3.1.2 Definition

Geo-location capability is a feature of the equipment to determine its geographical location with the purpose to configure itself according to the regulatory requirements applicable at the geographical location where it operates. The geo-location capability may be present in the equipment or in an external device (temporary) associated with the equipment operating at the same geographical location during the initial power up of the equipment. The geographical location may also be available in equipment already installed and operating at the same geographical location.

5.3.1.3 Test Result

Not applicable.

ANNEX A TEST RESULT

A.1 RF output power

Test Data

Note: EIRP Power = Conducted Power + Antenna Gain

Main Antenna

Modulation Mode			802.11b		
Limit			36 dBm		
Test Result					
Test Method	Test Conditions		EIRP (dBm)		
<div><input type="checkbox"/> Radiated</div> <div><input checked="" type="checkbox"/> Conducted</div>	Voltage	Temperature	Low Channel	Middle Channel	High Channel
			EIRP	EIRP	EIRP
	NV	NT	18.2	18.1	18.0
		LT	17.9	17.7	17.9
		HT	18.3	17.9	17.8
Test Verdict			Pass		

Modulation Mode			802.11g		
Limit			36 dBm		
Test Result					
Test Method	Test Conditions		EIRP (dBm)		
<div><input type="checkbox"/> Radiated</div> <div><input checked="" type="checkbox"/> Conducted</div>	Voltage	Temperature	Low Channel	Middle Channel	High Channel
			EIRP	EIRP	EIRP
	NV	NT	16.7	16.6	16.4
		LT	16.9	16.2	16.0
		HT	16.4	16.7	16.1
Test Verdict			Pass		

Modulation Mode			802.11n-20 MHz		
Limit			36 dBm		
Test Result					
Test Method	Test Conditions		EIRP (dBm)		
<div><input type="checkbox"/> Radiated</div> <div><input checked="" type="checkbox"/> Conducted</div>	Voltage	Temperature	Low Channel	Middle Channel	High Channel
			EIRP	EIRP	EIRP
	NV	NT	16.6	16.4	16.3
		LT	16.4	16.4	16.5
		HT	16.6	16.0	16.2
Test Verdict			Pass		

Modulation Mode			802.11n-40 MHz		
Limit			36 dBm		
Test Result					
Test Method	Test Conditions		EIRP (dBm)		
<div><input type="checkbox"/> Radiated</div> <div><input checked="" type="checkbox"/> Conducted</div>	Voltage	Temperature	Low Channel	Middle Channel	High Channel
			EIRP	EIRP	EIRP
	NV	NT	16.6	16.6	16.6
		LT	16.2	16.5	16.5
		HT	16.8	16.6	16.5
Test Verdict			Pass		

Aux. Antenna

Modulation Mode			802.11b		
Limit			36 dBm		
Test Result					
Test Method	Test Conditions		EIRP (dBm)		
<div><input type="checkbox"/> Radiated</div> <div><input checked="" type="checkbox"/> Conducted</div>	Voltage	Temperature	Low Channel	Middle Channel	High Channel
			EIRP	EIRP	EIRP
	NV	NT	17.7	17.8	17.9
		LT	17.8	17.6	17.7
		HT	17.4	17.4	17.6
Test Verdict			Pass		

Modulation Mode			802.11g		
Limit			36 dBm		
Test Result					
Test Method	Test Conditions		EIRP (dBm)		
<div><input type="checkbox"/> Radiated</div> <div><input checked="" type="checkbox"/> Conducted</div>	Voltage	Temperature	Low Channel	Middle Channel	High Channel
			EIRP	EIRP	EIRP
	NV	NT	16.3	16.3	16.5
		LT	15.9	16.3	16.2
		HT	16.3	16.3	16.4
Test Verdict			Pass		

Modulation Mode			802.11n-20 MHz		
Limit			36 dBm		
Test Result					
Test Method	Test Conditions		EIRP (dBm)		
<div><input type="checkbox"/> Radiated</div> <div><input checked="" type="checkbox"/> Conducted</div>	Voltage	Temperature	Low Channel	Middle Channel	High Channel
			EIRP	EIRP	EIRP
	NV	NT	16.2	16.3	16.5
		LT	16.1	16.2	16.1
		HT	15.8	16.5	16.1
Test Verdict			Pass		

Modulation Mode			802.11n-40 MHz		
Limit			36 dBm		
Test Result					
Test Method	Test Conditions		EIRP (dBm)		
<div><input type="checkbox"/> Radiated</div> <div><input checked="" type="checkbox"/> Conducted</div>	Voltage	Temperature	Low Channel	Middle Channel	High Channel
			EIRP	EIRP	EIRP
	NV	NT	16.4	16.7	16.8
		LT	16.1	16.5	17.0
		HT	16.0	16.9	16.5
Test Verdict			Pass		

MIMO

Modulation Mode			802.11n-20 MHz		
Limit			36 dBm		
Test Result					
Test Method	Test Conditions		EIRP (dBm)		
<div><input type="checkbox"/> Radiated</div> <div><input checked="" type="checkbox"/> Conducted</div>	Voltage	Temperature	Low Channel	Middle Channel	High Channel
			EIRP	EIRP	EIRP
	NV	NT	16.5	16.3	16.2
		LT	16.5	16.0	15.9
		HT	16.5	16.3	16.0
Test Verdict			Pass		

Modulation Mode			802.11n-40 MHz		
Limit			36 dBm		
Test Result					
Test Method	Test Conditions		EIRP (dBm)		
<div><input type="checkbox"/> Radiated</div> <div><input checked="" type="checkbox"/> Conducted</div>	Voltage	Temperature	Low Channel	Middle Channel	High Channel
			EIRP	EIRP	EIRP
	NV	NT	16.5	16.6	16.9
		LT	16.2	16.2	17.0
		HT	16.7	16.4	16.6
Test Verdict			Pass		

Bursts Power List

Main Antenna

802.11b: Low Channel

Burst RMS Power	Start Time	Stop Time	Tx_on	Tx_off
dBm	ms	ms	ms	ms
18.3	0.000	1000.000	1000.000	0.000

802.11b: Middle Channel

Burst RMS Power	Start Time	Stop Time	Tx_on	Tx_off
dBm	ms	ms	ms	ms
18.1	0.000	1000.000	1000.000	0.000

802.11b: High Channel

Burst RMS Power	Start Time	Stop Time	Tx_on	Tx_off
dBm	ms	ms	ms	ms
18.0	0.000	1000.000	1000.000	0.000

802.11g: Low Channel

Burst RMS Power	Start Time	Stop Time	Tx_on	Tx_off
dBm	ms	ms	ms	ms
16.9	0.000	1000.000	1000.000	0.000

802.11g: Middle Channel

Burst RMS Power	Start Time	Stop Time	Tx_on	Tx_off
dBm	ms	ms	ms	ms
16.7	0.000	1000.000	1000.000	0.000

802.11g: High Channel

Burst RMS Power	Start Time	Stop Time	Tx_on	Tx_off
dBm	ms	ms	ms	ms
16.4	0.000	1000.000	1000.000	0.000

802.11n-20 MHz: Low Channel

Burst RMS Power	Start Time	Stop Time	Tx_on	Tx_off
dBm	ms	ms	ms	ms
16.6	0.000	1000.000	1000.000	0.000

802.11n-20 MHz: Middle Channel

Burst RMS Power	Start Time	Stop Time	Tx_on	Tx_off
dBm	ms	ms	ms	ms
16.4	0.000	1000.000	1000.000	0.000

802.11n-20 MHz: High Channel

Burst RMS Power	Start Time	Stop Time	Tx_on	Tx_off
dBm	ms	ms	ms	ms
16.5	0.000	1000.000	1000.000	0.000

802.11n-40 MHz: Low Channel

Burst RMS Power	Start Time	Stop Time	Tx_on	Tx_off
dBm	ms	ms	ms	ms
16.8	0.000	1000.000	1000.000	0.000

802.11n-40 MHz: Middle Channel

Burst RMS Power	Start Time	Stop Time	Tx_on	Tx_off
dBm	ms	ms	ms	ms
16.6	0.000	1000.000	1000.000	0.000

802.11n-40 MHz: High Channel

Burst RMS Power	Start Time	Stop Time	Tx_on	Tx_off
dBm	ms	ms	ms	ms
16.6	0.000	1000.000	1000.000	0.000

Aux. Antenna

802.11b: Low Channel

Burst RMS Power	Start Time	Stop Time	Tx_on	Tx_off
dBm	ms	ms	ms	ms
17.8	0.000	1000.000	1000.000	0.000

802.11b: Middle Channel

Burst RMS Power	Start Time	Stop Time	Tx_on	Tx_off
dBm	ms	ms	ms	ms
17.8	0.000	1000.000	1000.000	0.000

802.11b: High Channel

Burst RMS Power	Start Time	Stop Time	Tx_on	Tx_off
dBm	ms	ms	ms	ms
17.9	0.000	1000.000	1000.000	0.000

802.11g: Low Channel

Burst RMS Power	Start Time	Stop Time	Tx_on	Tx_off
dBm	ms	ms	ms	ms
16.3	0.000	1000.000	1000.000	0.000

802.11g: Middle Channel

Burst RMS Power	Start Time	Stop Time	Tx_on	Tx_off
dBm	ms	ms	ms	ms
16.3	0.000	1000.000	1000.000	0.000

802.11g: High Channel

Burst RMS Power	Start Time	Stop Time	Tx_on	Tx_off
dBm	ms	ms	ms	ms
16.5	0.000	1000.000	1000.000	0.000

802.11n-20 MHz: Low Channel

Burst RMS Power	Start Time	Stop Time	Tx_on	Tx_off
dBm	ms	ms	ms	ms
16.2	0.000	1000.000	1000.000	0.000

802.11n-20 MHz: Middle Channel

Burst RMS Power	Start Time	Stop Time	Tx_on	Tx_off
dBm	ms	ms	ms	ms
16.5	0.000	1000.000	1000.000	0.000

802.11n-20 MHz: High Channel

Burst RMS Power	Start Time	Stop Time	Tx_on	Tx_off
dBm	ms	ms	ms	ms
16.5	0.000	1000.000	1000.000	0.000

802.11n-40 MHz: Low Channel

Burst RMS Power	Start Time	Stop Time	Tx_on	Tx_off
dBm	ms	ms	ms	ms
16.4	0.000	1000.000	1000.000	0.000

802.11n-40 MHz: Middle Channel

Burst RMS Power	Start Time	Stop Time	Tx_on	Tx_off
dBm	ms	ms	ms	ms
16.9	0.000	1000.000	1000.000	0.000

802.11n-40 MHz: High Channel

Burst RMS Power	Start Time	Stop Time	Tx_on	Tx_off
dBm	ms	ms	ms	ms
17.0	0.000	1000.000	1000.000	0.000

MIMO

802.11n-20 MHz: Low Channel

Burst RMS Power	Start Time	Stop Time	Tx_on	Tx_off
dBm	ms	ms	ms	ms
16.5	0.000	1000.000	1000.000	0.000

802.11n-20 MHz: Middle Channel

Burst RMS Power	Start Time	Stop Time	Tx_on	Tx_off
dBm	ms	ms	ms	ms
16.3	0.000	1000.000	1000.000	0.000

802.11n-20 MHz: High Channel

Burst RMS Power	Start Time	Stop Time	Tx_on	Tx_off
dBm	ms	ms	ms	ms
16.2	0.000	1000.000	1000.000	0.000

802.11n-40 MHz: Low Channel

Burst RMS Power	Start Time	Stop Time	Tx_on	Tx_off
dBm	ms	ms	ms	ms
16.7	0.000	1000.000	1000.000	0.000

802.11n-40 MHz: Middle Channel

Burst RMS Power	Start Time	Stop Time	Tx_on	Tx_off
dBm	ms	ms	ms	ms
16.6	0.000	1000.000	1000.000	0.000

802.11n-40 MHz: High Channel

Burst RMS Power	Start Time	Stop Time	Tx_on	Tx_off
dBm	ms	ms	ms	ms
17.0	0.000	1000.000	1000.000	0.000

A.2 Power spectral density

Measuring Parameter

Frequency Range		
2400 MHz to 2483.5 MHz	RBW (MHz)	10 kHz
	VBW (MHz)	30 kHz
	Sweep points	8351
	Detector mode	RMS
	Trace mode	Max Hold
	Sweep time	Auto

Test Data

Note: The Power density is ERIP Power density, which is contain antenna gain

Main Antenna

Modulation Mode			802.11b		
Limit			10 dBm/MHz		
Test Result					
Test Method	Test Conditions		Power density (dBm/MHz)		
<input type="checkbox"/> Radiated <input checked="" type="checkbox"/> Conducted	Temperature	Voltage	Low Channel	Middle Channel	High Channel
			Power Spectral density	Power Spectral density	Power Spectral density
	NT	NV	9.49	9.41	9.29
Test Verdict			Pass		

Modulation Mode			802.11g		
Limit			10 dBm/MHz		
Test Result					
Test Method	Test Conditions		Power density (dBm/MHz)		
<div><input type="checkbox"/> Radiated</div> <div><input checked="" type="checkbox"/> Conducted</div>	Temperature	Voltage	Low Channel	Middle Channel	High Channel
			Power Spectral density	Power Spectral density	Power Spectral density
		NT	NV	5.73	5.62
Test Verdict			Pass		

Modulation Mode			802.11n-20 MHz		
Limit			10 dBm/MHz		
Test Result					
Test Method	Test Conditions		Power density (dBm/MHz)		
<div><input type="checkbox"/> Radiated</div> <div><input checked="" type="checkbox"/> Conducted</div>	Temperature	Voltage	Low Channel	Middle Channel	High Channel
			Power Spectral density	Power Spectral density	Power Spectral density
		NT	NV	5.41	5.22
Test Verdict			Pass		

Modulation Mode			802.11n-40 MHz		
Limit			10 dBm/MHz		
Test Result					
Test Method	Test Conditions		Power density (dBm/MHz)		
<div><input type="checkbox"/> Radiated</div> <div><input checked="" type="checkbox"/> Conducted</div>	Temperature	Voltage	Low Channel	Middle Channel	High Channel
			Power Spectral density	Power Spectral density	Power Spectral density
		NT	NV	1.54	1.54
Test Verdict			Pass		

Anx. Antenna

Modulation Mode			802.11b		
Limit			10 dBm/MHz		
Test Result					
Test Method	Test Conditions		Power density (dBm/MHz)		
<input type="checkbox"/> Radiated <input checked="" type="checkbox"/> Conducted	Temperature	Voltage	Low Channel	Middle Channel	High Channel
			Power Spectral density	Power Spectral density	Power Spectral density
	NT	NV	8.98	9.06	9.19
Test Verdict			Pass		

Modulation Mode			802.11g		
Limit			10 dBm/MHz		
Test Result					
Test Method	Test Conditions		Power density (dBm/MHz)		
<div><input type="checkbox"/> Radiated</div> <div><input checked="" type="checkbox"/> Conducted</div>	Temperature	Voltage	Low Channel	Middle Channel	High Channel
			Power Spectral density	Power Spectral density	Power Spectral density
		NT	NV	5.32	5.31
Test Verdict			Pass		

Modulation Mode			802.11n-20 MHz		
Limit			10 dBm/MHz		
Test Result					
Test Method	Test Conditions		Power density (dBm/MHz)		
<div><input type="checkbox"/> Radiated</div> <div><input checked="" type="checkbox"/> Conducted</div>	Temperature	Voltage	Low Channel	Middle Channel	High Channel
			Power Spectral density	Power Spectral density	Power Spectral density
		NT	NV	5.02	5.12
Test Verdict			Pass		

Modulation Mode			802.11n-40 MHz		
Limit			10 dBm/MHz		
Test Result					
Test Method	Test Conditions		Power density (dBm/MHz)		
<div><input type="checkbox"/> Radiated</div> <div><input checked="" type="checkbox"/> Conducted</div>	Temperature	Voltage	Low Channel	Middle Channel	High Channel
			Power Spectral density	Power Spectral density	Power Spectral density
		NT	NV	1.23	1.54
Test Verdict			Pass		

A.3 Duty Cycle, Tx-sequence, Tx-gap

Note: The maximum value of Duty Cycle declared by the supplier.

Test Data

Duty Cycle (%)	Limit Duty Cycle (%) ^{Note1}	Number of Bursts	Minimum Tx-On (ms)	Maximum Tx-On (ms)	Minimum Tx-Off (ms)	Maximum Tx-Off (ms)	Measurement Time (ms)	Comment
--	--	--	--	--	--	--	--	--

Note: Not applicable.

A.4 Medium Utilisation (MU) factor

Medium Utilisation (MU) (%)	Limit Medium Utilisation (MU) (%)	Verdict
--	10	--

Note: Not applicable.

A.5 Adaptivity (adaptive equipment using modulations other than FHSS)

Test Method&Interference threshold level

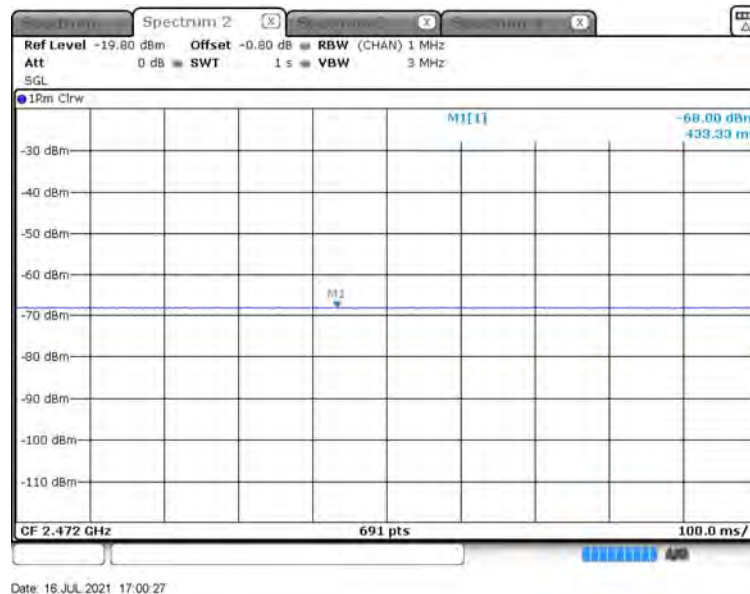
Test Method	Interference threshold level
<input type="checkbox"/> Radiated <input checked="" type="checkbox"/> Conducted	<p>The maximum EIRP power is 18.3dBm and antenna gain is 2dBi.</p> <p>Threshold level= $-70 \text{ dBm/MHz} + 10 \times \log_{10} (100 \text{ mW} / P_{\text{out}}) = -68.3 \text{ dBm/MHz}$.The interference signal level to the UUT is -68.3 dBm/MHz</p>

Test plot

99% Bandwidth



Threshold level



Test Data

Test step 1

Test Conditions		Test Result						
Temperature	Voltage	Test Mode	Frequency (MHz)	COT (ms)	Limit (ms)	CCA Time (μs)	Idle Period (ms)	Limit (μs)
NT	NV	802.11b	2412	8.39	13	36	0.036	18
			2472	8.39	13	36	0.036	18
		802.11g	2412	8.39	13	36	0.036	18
			2472	8.39	13	36	0.036	18
		802.11n20	2412	1.30	13	43	0.043	18
			2472	1.30	13	43	0.043	18
		802.11n40	2422	1.30	13	43	0.043	18
			2462	1.30	13	43	0.043	18
Note: Wanted signal mean power from companion device is -50 dBm/MHz.								
Test Verdict	Pass							

Test step 2

Note: The least monitoring time during the adaptivity test is 60s, please refer to the test plot as shown below.

Test step 2 2nd

Temperature	Voltage	Test Mode	Frequency (MHz)	Number of Bursts	Short Signalling (%)	Limit (%)
NT	NV	802.11b	2412	2	1.1596	10
			2472	2	0.8696	10
		802.11g	2412	1	0.1450	10
			2472	2	0.2900	10
		802.11n20	2412	2	0.8696	10
			2472	1	0.7246	10
		802.11n40	2422	1	0.7246	10
			2462	1	0.1450	10

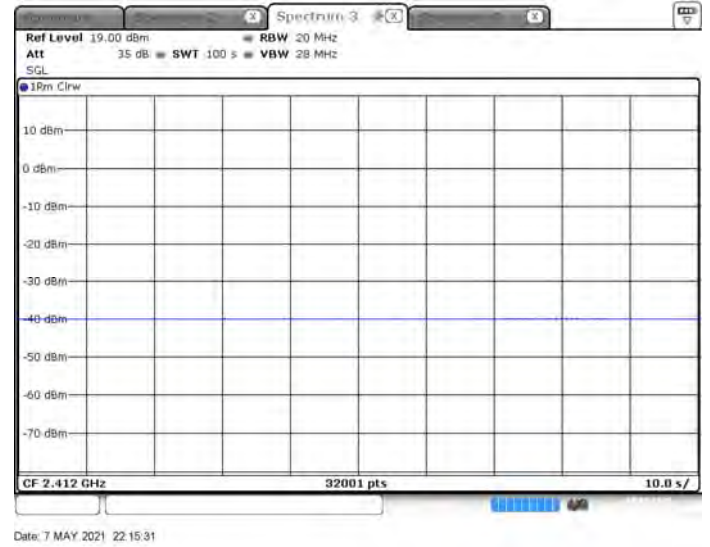
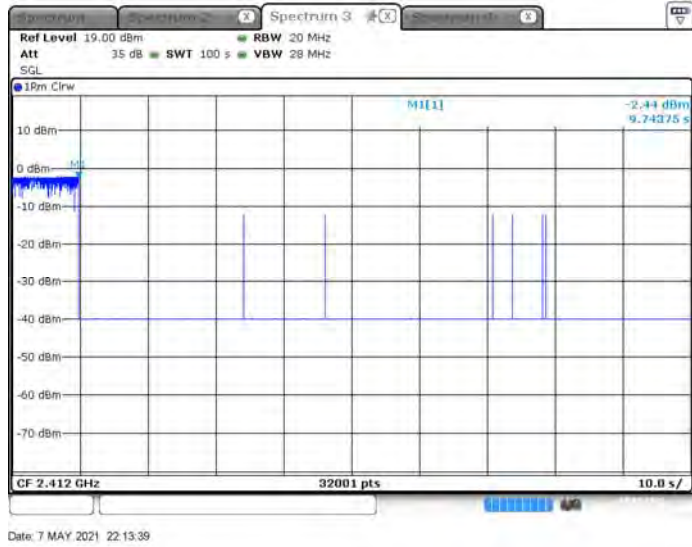
The step 3

Note: The least monitoring time during the blocking test is 60s, please refer to the test plot as shown below.

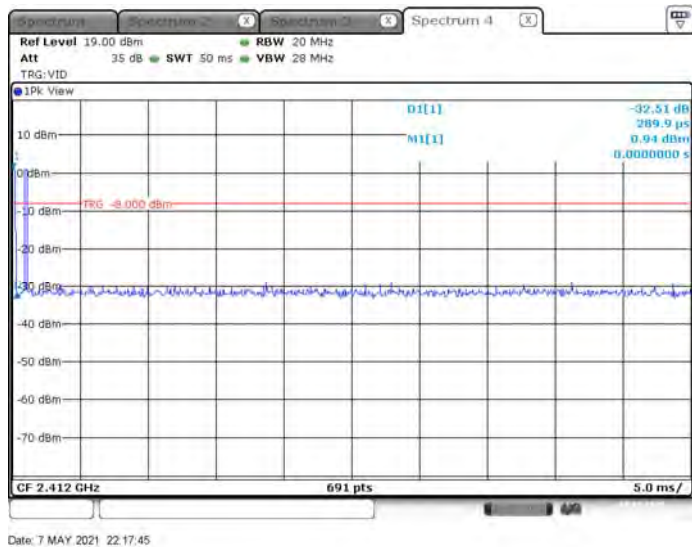
Test Plots

802.11b: Low Channel Step 2 Interferer on / Blocker off

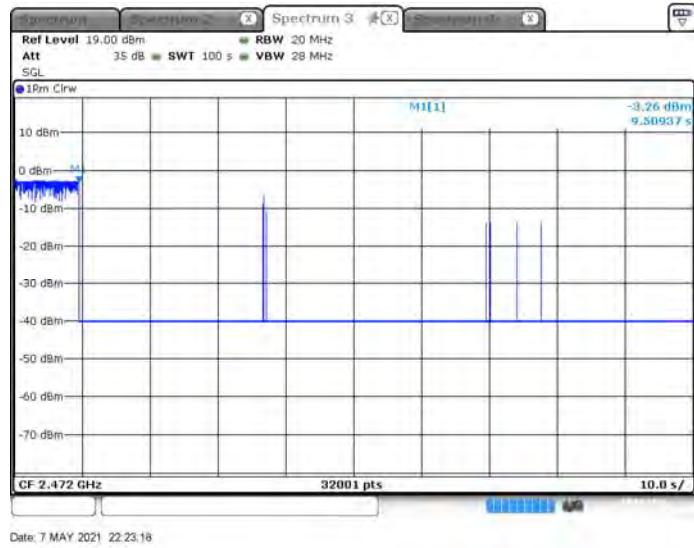
802.11b: Low Channel Step 3 Interferer on / Blocker on



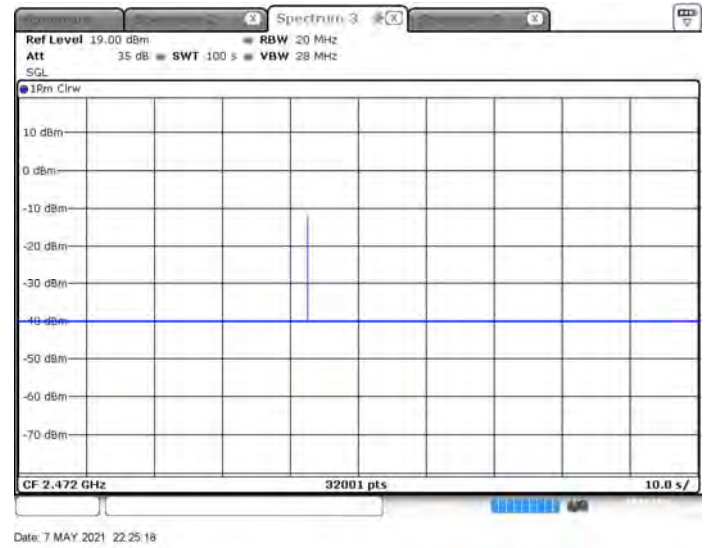
802.11b: Low Channel Short Signalling



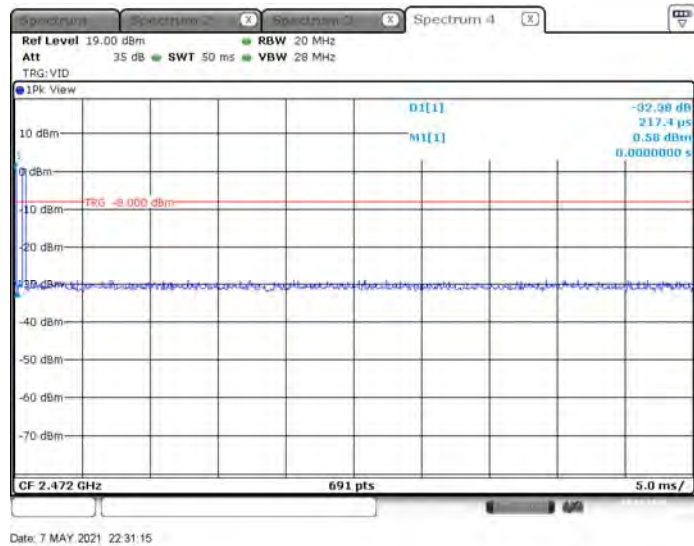
802.11b: High Channel Step 2 Interferer on / Blocker off



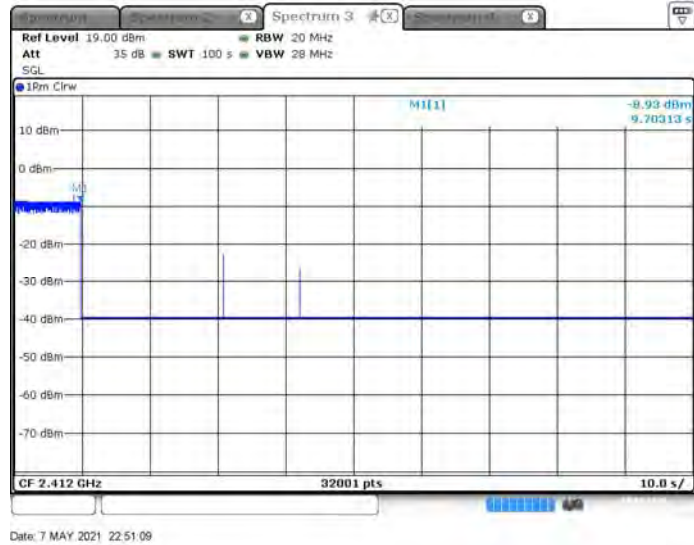
802.11b: High Channel Step 3 Interferer on / Blocker on



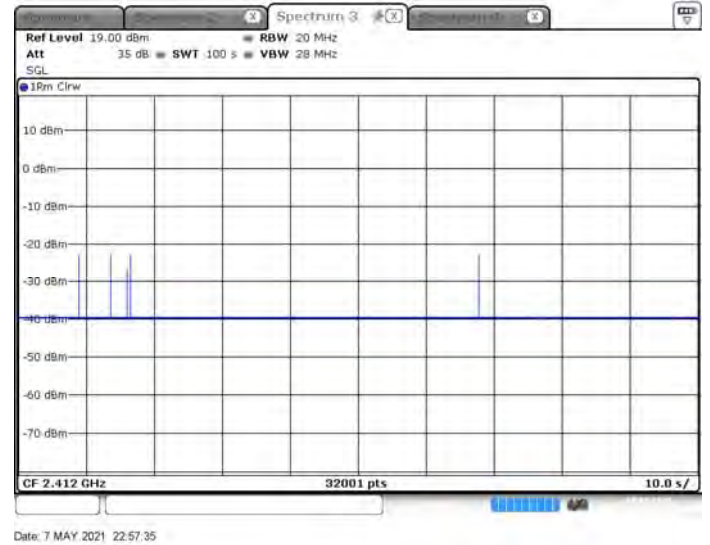
802.11b: High Channel Short Signalling



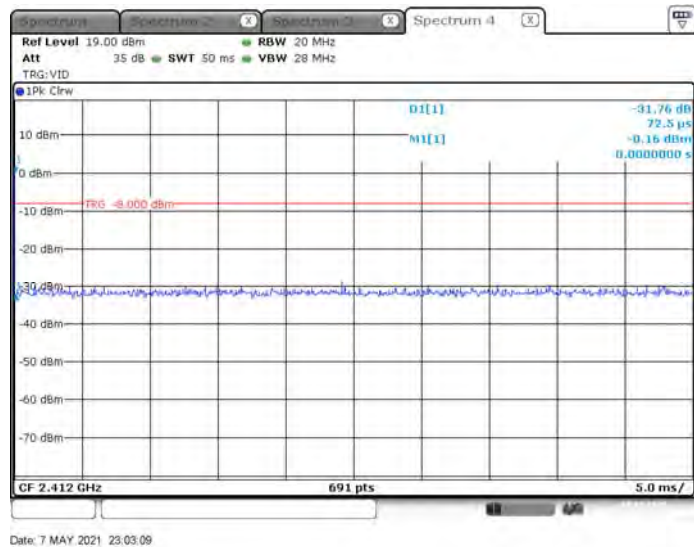
802.11g: Low Channel Step 2 Interferer on / Blocker off



802.11g: Low Channel Step 3 Interferer on / Blocker on



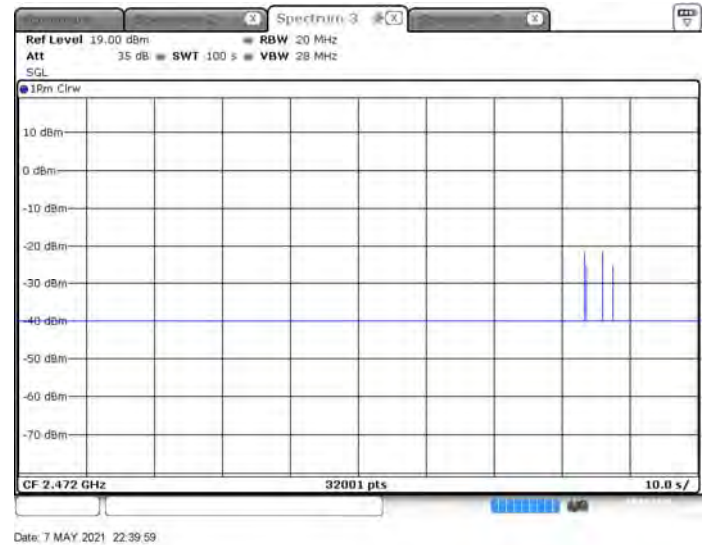
802.11g: Low Channel Short Signalling



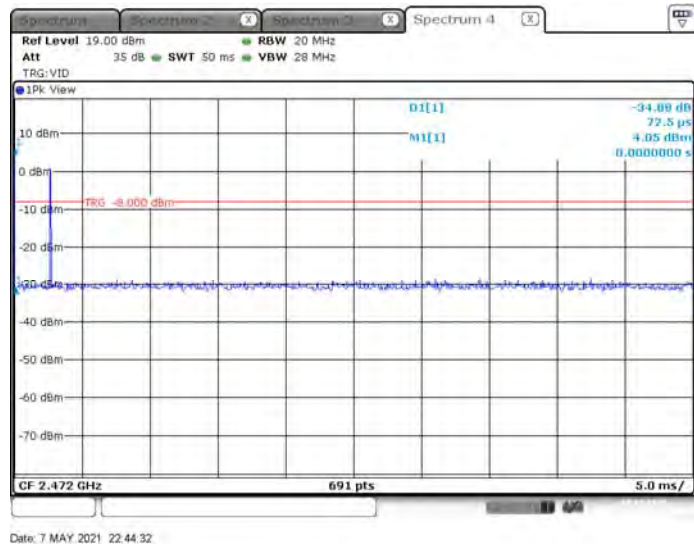
802.11g: High Channel Step 2 Interferer on / Blocker off



802.11g: High Channel Step 3 Interferer on / Blocker on



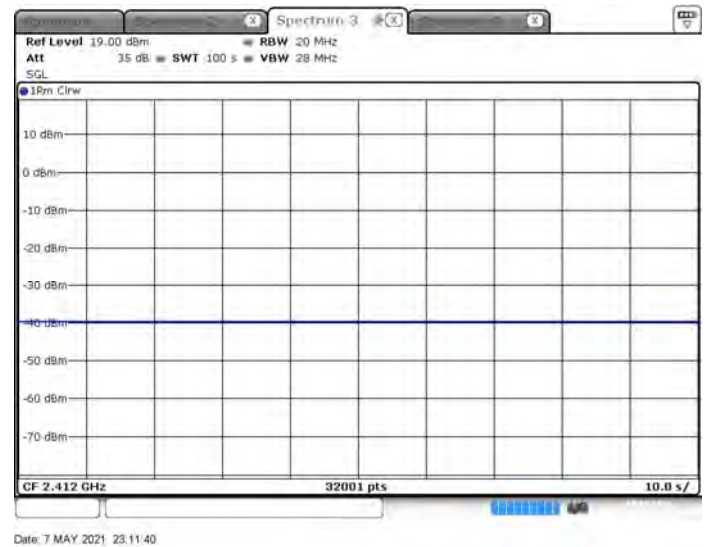
802.11g: High Channel Short Signalling



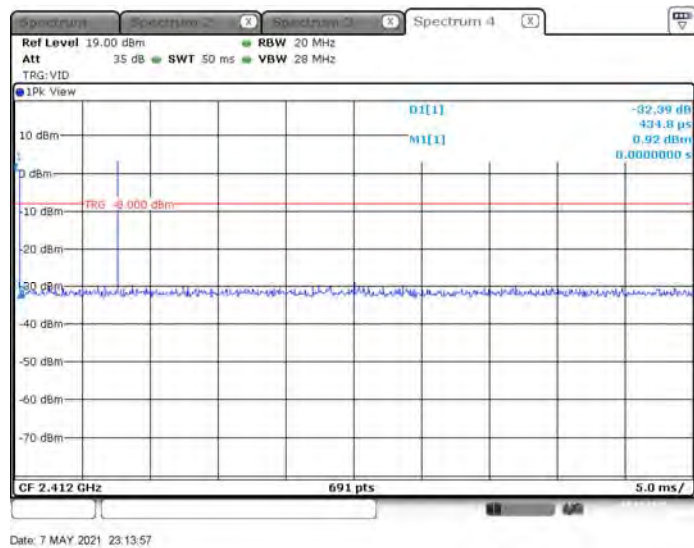
802.11n-20: Low Channel Step 2 Interferer on / Blocker off

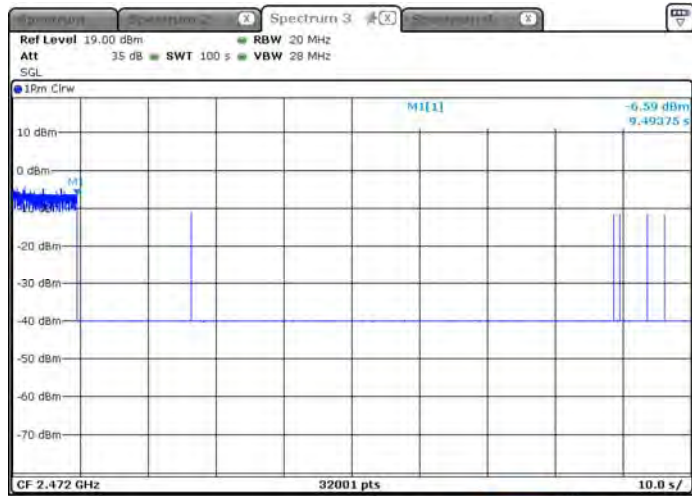


802.11n-20: Low Channel Step 3 Interferer on / Blocker on

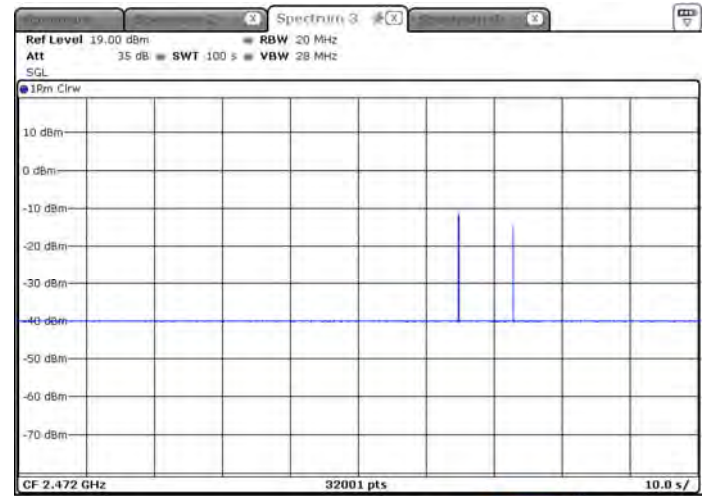


802.11n-20: Low Channel Short Signalling



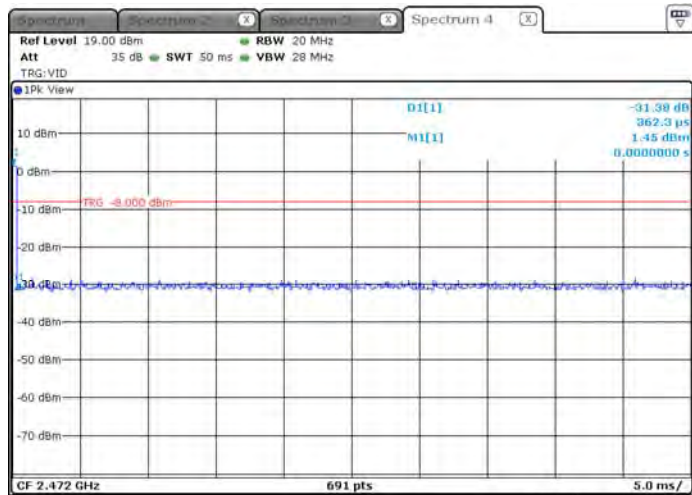
802.11n-20: High Channel Step 2 Interferer on /
Blocker off


Date: 7 MAY 2021 23:18:36

802.11n-20: High Channel Step 3 Interferer on /
Blocker on


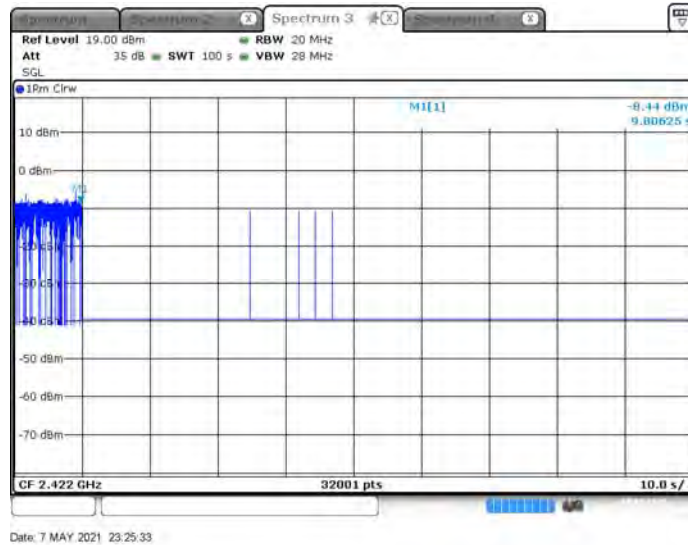
Date: 7 MAY 2021 23:20:49

802.11n-20: High Channel Short Signalling



Date: 7 MAY 2021 23:22:08

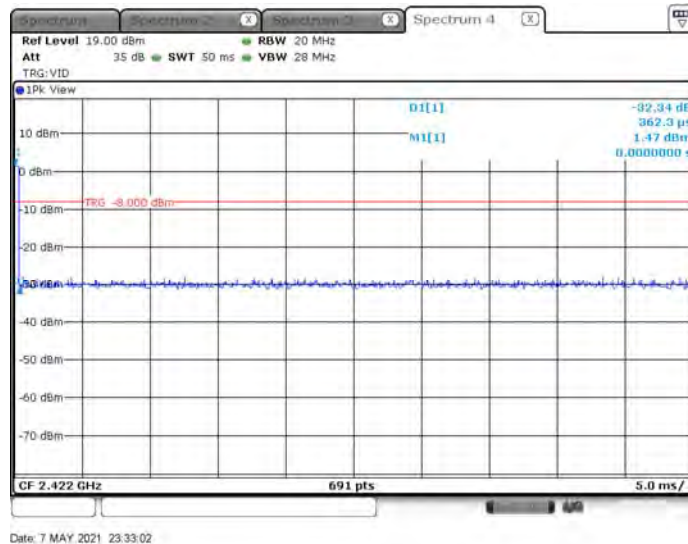
802.11n-40: Low Channel Step 2 Interferer on / Blocker off



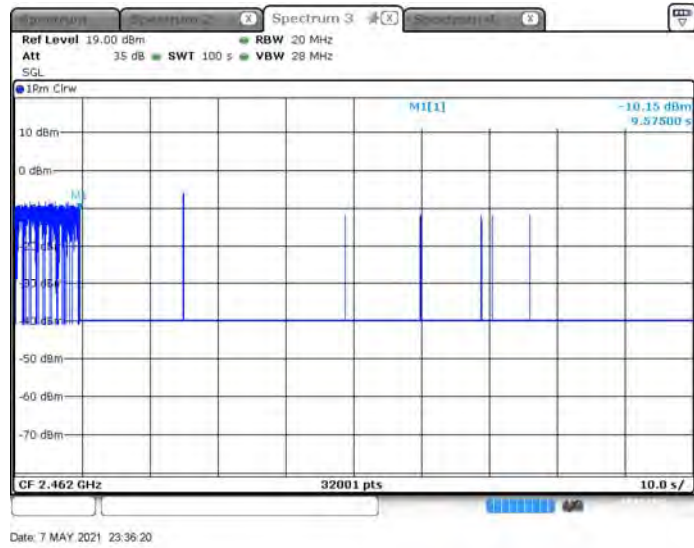
802.11n-40: Low Channel Step 3 Interferer on / Blocker on



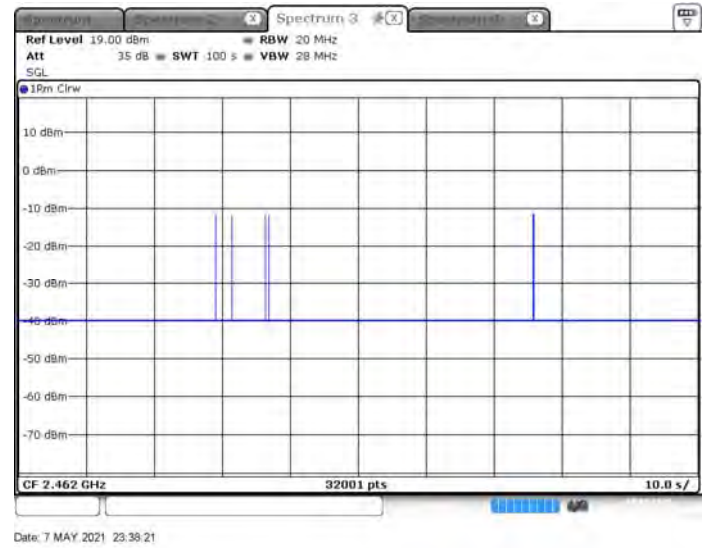
802.11n-40: Low Channel Short Signalling



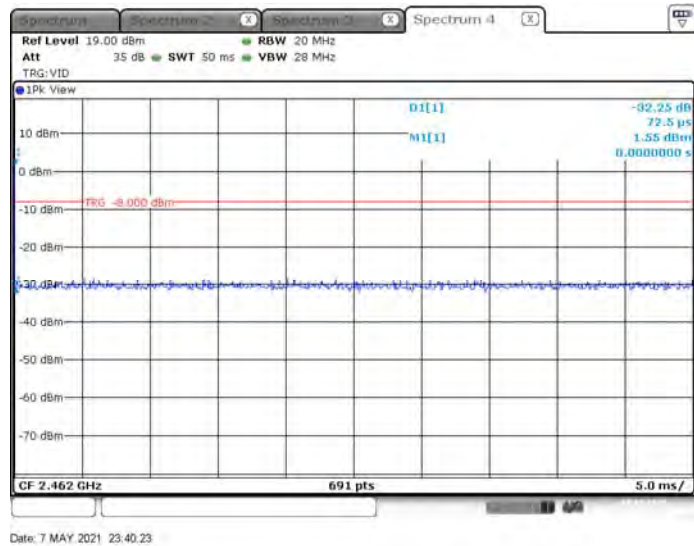
802.11n-40: High Channel Step 2 Interferer on / Blocker off



802.11n-40: High Channel Step 3 Interferer on / Blocker on



802.11n-40: High Channel Short Signalling



A.6 Occupied Channel Bandwidth

Measuring Parameter

Centre Frequency	The centre frequency of the channel under test
RBW (MHz)	1 MHz
VBW (MHz)	3 MHz
Span (MHz)	40 MHz (for 20 MHz channel), 80 MHz (for 40 MHz channel)
Detector mode	RMS
Trace mode	Max Hold
Sweep time	Auto
Test Method	<input type="checkbox"/> Radiated <input checked="" type="checkbox"/> Conducted

Test Data

Main Antenna

Test Conditions		Test Mode	DUT Frequency (MHz)	Occupied Channel Bandwidth (MHz)	Lower Band Edge (MHz)	Upper Band Edge (MHz)	Limit (MHz)
Temperature	Voltage						
NT	NV	802.11b	2412	15.000000	2404.466553	2149.466553	Within The Band 2400 MHz to 2483.5 MHz
			2472	15.000000	2464.466553	2479.466553	
		802.11g	2412	17.130000	2403.399902	2420.529902	
			2472	17.130000	2463.399902	2480.529902	
		802.11n20	2412	18.070000	2402.933350	2421.003350	
			2472	18.070000	2462.933350	2481.003350	
		802.11n40	2422	36.670000	2403.600098	2440.270098	
			2462	36.670000	2443.600098	2480.270098	
Test Verdict		Pass					

Test Plots

Main Antenna

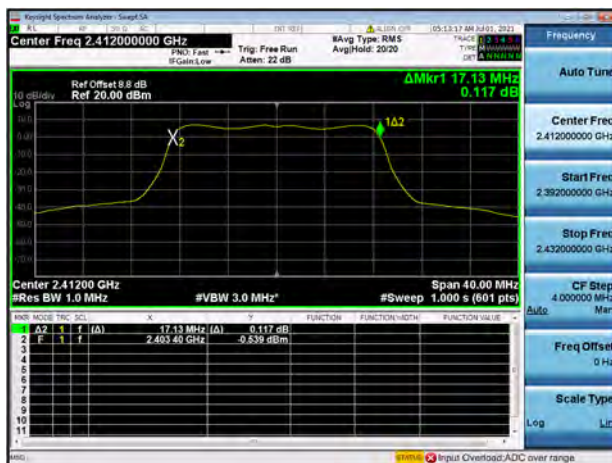
802.11b: Low Channel



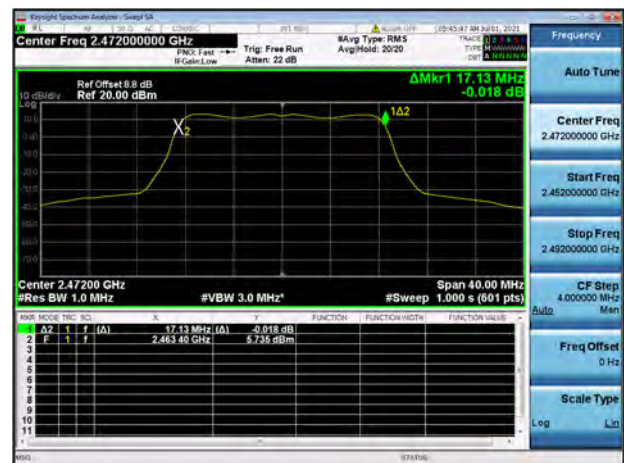
802.11b: High Channel



802.11g: Low Channel



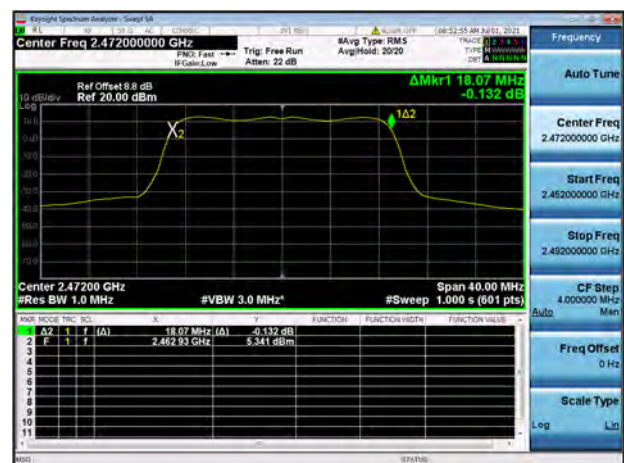
802.11g: High Channel



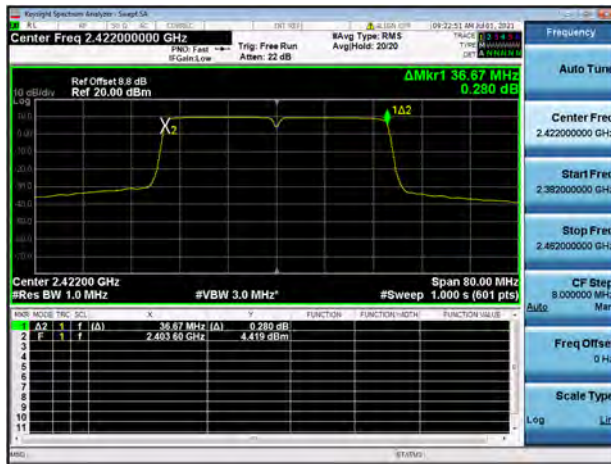
802.11n-20 MHz: Low Channel



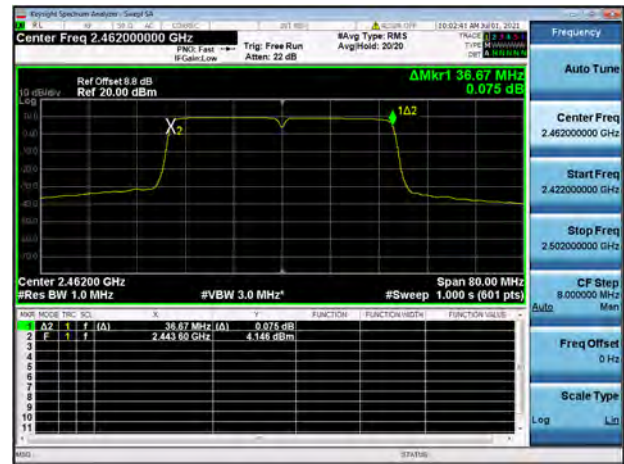
802.11n-20 MHz: High Channel



802.11n-40 MHz: Low Channel



802.11n-40 MHz: High Channel



A.7 Transmitter unwanted emissions in the out-of-band domain

Test Data

Main Antenna

802.11b

DUT Frequency (MHz)	Nominal Bandwidth (MHz)	Frequency (MHz)	Level (dBm)	Limit (dBm)	Result
2412	20	2380.0	-43.553	-10	PASS
2412	20	2381.0	-43.055	-10	PASS
2412	20	2382.0	-43.417	-10	PASS
2412	20	2383.0	-43.279	-10	PASS
2412	20	2384.0	-43.311	-10	PASS
2412	20	2385.0	-43.433	-10	PASS
2412	20	2386.0	-43.389	-10	PASS
2412	20	2387.0	-43.182	-10	PASS
2412	20	2388.0	-43.232	-10	PASS
2412	20	2389.0	-42.940	-10	PASS
2412	20	2390.0	-42.757	-10	PASS
2412	20	2391.0	-43.025	-10	PASS
2412	20	2392.0	-42.883	-10	PASS
2412	20	2393.0	-42.941	-10	PASS
2412	20	2394.0	-42.734	-10	PASS
2412	20	2395.0	-42.228	-10	PASS
2412	20	2396.0	-41.726	-10	PASS
2412	20	2397.0	-38.823	-10	PASS
2412	20	2398.0	-36.414	-10	PASS
2412	20	2399.0	-33.853	-10	PASS
2412	20	2400.0	-31.671	-10	PASS
2412	20	2360.0	-43.269	-20	PASS
2412	20	2361.0	-43.565	-20	PASS
2412	20	2362.0	-43.602	-20	PASS
2412	20	2363.0	-43.710	-20	PASS
2412	20	2364.0	-43.411	-20	PASS
2412	20	2365.0	-43.577	-20	PASS
2412	20	2366.0	-43.234	-20	PASS
2412	20	2367.0	-43.750	-20	PASS
2412	20	2368.0	-42.910	-20	PASS
2412	20	2369.0	-42.988	-20	PASS
2412	20	2370.0	-43.507	-20	PASS
2412	20	2371.0	-43.521	-20	PASS
2412	20	2372.0	-43.241	-20	PASS
2412	20	2373.0	-43.109	-20	PASS
2412	20	2374.0	-43.169	-20	PASS
2412	20	2375.0	-42.939	-20	PASS

2412	20	2376.0	-43.068	-20	PASS
2412	20	2377.0	-43.045	-20	PASS
2412	20	2378.0	-43.334	-20	PASS
2412	20	2379.0	-43.370	-20	PASS
2472	20	2483.5	-31.537	-10	PASS
2472	20	2484.5	-34.129	-10	PASS
2472	20	2485.5	-36.785	-10	PASS
2472	20	2486.5	-39.653	-10	PASS
2472	20	2487.5	-42.148	-10	PASS
2472	20	2488.5	-42.590	-10	PASS
2472	20	2489.5	-43.048	-10	PASS
2472	20	2490.5	-42.959	-10	PASS
2472	20	2491.5	-43.000	-10	PASS
2472	20	2492.5	-43.254	-10	PASS
2472	20	2493.5	-43.569	-10	PASS
2472	20	2494.5	-43.122	-10	PASS
2472	20	2495.5	-43.690	-10	PASS
2472	20	2496.5	-43.632	-10	PASS
2472	20	2497.5	-43.672	-10	PASS
2472	20	2498.5	-43.681	-10	PASS
2472	20	2499.5	-43.800	-10	PASS
2472	20	2500.5	-43.855	-10	PASS
2472	20	2501.5	-43.113	-10	PASS
2472	20	2502.5	-42.291	-10	PASS
2472	20	2503.5	-43.862	-10	PASS
2472	20	2504.5	-43.460	-20	PASS
2472	20	2505.5	-42.937	-20	PASS
2472	20	2506.5	-43.099	-20	PASS
2472	20	2507.5	-42.958	-20	PASS
2472	20	2508.5	-43.266	-20	PASS
2472	20	2509.5	-42.505	-20	PASS
2472	20	2510.5	-42.074	-20	PASS
2472	20	2511.5	-42.423	-20	PASS
2472	20	2512.5	-42.347	-20	PASS
2472	20	2513.5	-42.554	-20	PASS
2472	20	2514.5	-42.920	-20	PASS
2472	20	2515.5	-43.790	-20	PASS
2472	20	2516.5	-43.927	-20	PASS
2472	20	2517.5	-43.699	-20	PASS
2472	20	2518.5	-43.488	-20	PASS
2472	20	2519.5	-43.459	-20	PASS
2472	20	2520.5	-43.678	-20	PASS
2472	20	2521.5	-44.255	-20	PASS
2472	20	2522.5	-44.124	-20	PASS

802.11g

DUT Frequency (MHz)	Nominal Bandwidth (MHz)	Frequency (MHz)	Level (dBm)	Limit (dBm)	Result
2412	20	2380.0	-42.827	-10	PASS
2412	20	2381.0	-43.256	-10	PASS
2412	20	2382.0	-43.122	-10	PASS
2412	20	2383.0	-42.979	-10	PASS
2412	20	2384.0	-42.939	-10	PASS
2412	20	2385.0	-42.535	-10	PASS
2412	20	2386.0	-42.966	-10	PASS
2412	20	2387.0	-42.813	-10	PASS
2412	20	2388.0	-42.308	-10	PASS
2412	20	2389.0	-39.983	-10	PASS
2412	20	2390.0	-38.103	-10	PASS
2412	20	2391.0	-36.039	-10	PASS
2412	20	2392.0	-35.816	-10	PASS
2412	20	2393.0	-35.087	-10	PASS
2412	20	2394.0	-32.897	-10	PASS
2412	20	2395.0	-34.177	-10	PASS
2412	20	2396.0	-31.543	-10	PASS
2412	20	2397.0	-32.747	-10	PASS
2412	20	2398.0	-30.319	-10	PASS
2412	20	2399.0	-31.188	-10	PASS
2412	20	2400.0	-28.528	-10	PASS
2412	20	2360.0	-43.795	-20	PASS
2412	20	2361.0	-43.750	-20	PASS
2412	20	2362.0	-43.461	-20	PASS
2412	20	2363.0	-43.851	-20	PASS
2412	20	2364.0	-43.232	-20	PASS
2412	20	2365.0	-43.062	-20	PASS
2412	20	2366.0	-43.008	-20	PASS
2412	20	2367.0	-43.436	-20	PASS
2412	20	2368.0	-42.946	-20	PASS
2412	20	2369.0	-43.305	-20	PASS
2412	20	2370.0	-42.541	-20	PASS
2412	20	2371.0	-42.921	-20	PASS
2412	20	2372.0	-42.898	-20	PASS
2412	20	2373.0	-43.166	-20	PASS
2412	20	2374.0	-43.041	-20	PASS
2412	20	2375.0	-43.499	-20	PASS
2412	20	2376.0	-42.661	-20	PASS
2412	20	2377.0	-43.062	-20	PASS
2412	20	2378.0	-43.143	-20	PASS

2412	20	2379.0	-43.029	-20	PASS
2472	20	2483.5	-29.916	-10	PASS
2472	20	2484.5	-29.232	-10	PASS
2472	20	2485.5	-32.338	-10	PASS
2472	20	2486.5	-32.228	-10	PASS
2472	20	2487.5	-34.642	-10	PASS
2472	20	2488.5	-34.858	-10	PASS
2472	20	2489.5	-37.076	-10	PASS
2472	20	2490.5	-36.253	-10	PASS
2472	20	2491.5	-39.138	-10	PASS
2472	20	2492.5	-38.060	-10	PASS
2472	20	2493.5	-40.396	-10	PASS
2472	20	2494.5	-40.061	-10	PASS
2472	20	2495.5	-42.237	-10	PASS
2472	20	2496.5	-42.108	-10	PASS
2472	20	2497.5	-42.142	-10	PASS
2472	20	2498.5	-43.068	-10	PASS
2472	20	2499.5	-43.268	-10	PASS
2472	20	2500.5	-43.143	-10	PASS
2472	20	2501.5	-43.348	-10	PASS
2472	20	2502.5	-43.602	-10	PASS
2472	20	2503.5	-42.386	-10	PASS
2472	20	2504.5	-42.926	-20	PASS
2472	20	2505.5	-42.776	-20	PASS
2472	20	2506.5	-42.855	-20	PASS
2472	20	2507.5	-42.876	-20	PASS
2472	20	2508.5	-42.943	-20	PASS
2472	20	2509.5	-43.311	-20	PASS
2472	20	2510.5	-42.572	-20	PASS
2472	20	2511.5	-42.999	-20	PASS
2472	20	2512.5	-43.381	-20	PASS
2472	20	2513.5	-43.291	-20	PASS
2472	20	2514.5	-43.334	-20	PASS
2472	20	2515.5	-43.699	-20	PASS
2472	20	2516.5	-43.209	-20	PASS
2472	20	2517.5	-43.423	-20	PASS
2472	20	2518.5	-43.290	-20	PASS
2472	20	2519.5	-43.444	-20	PASS
2472	20	2520.5	-43.857	-20	PASS
2472	20	2521.5	-44.017	-20	PASS
2472	20	2522.5	-44.237	-20	PASS

802.11n20

DUT Frequency (MHz)	Nominal Bandwidth (MHz)	Frequency (MHz)	Level (dBm)	Limit (dBm)	Result
2412	20	2380.0	-42.562	-10	PASS
2412	20	2381.0	-42.970	-10	PASS
2412	20	2382.0	-43.270	-10	PASS
2412	20	2383.0	-43.568	-10	PASS
2412	20	2384.0	-43.345	-10	PASS
2412	20	2385.0	-43.138	-10	PASS
2412	20	2386.0	-43.082	-10	PASS
2412	20	2387.0	-42.156	-10	PASS
2412	20	2388.0	-41.072	-10	PASS
2412	20	2389.0	-39.200	-10	PASS
2412	20	2390.0	-35.206	-10	PASS
2412	20	2391.0	-33.148	-10	PASS
2412	20	2392.0	-33.478	-10	PASS
2412	20	2393.0	-34.064	-10	PASS
2412	20	2394.0	-35.105	-10	PASS
2412	20	2395.0	-34.886	-10	PASS
2412	20	2396.0	-33.494	-10	PASS
2412	20	2397.0	-30.489	-10	PASS
2412	20	2398.0	-30.545	-10	PASS
2412	20	2399.0	-31.466	-10	PASS
2412	20	2400.0	-30.663	-10	PASS
2412	20	2360.0	-43.518	-20	PASS
2412	20	2361.0	-43.969	-20	PASS
2412	20	2362.0	-43.009	-20	PASS
2412	20	2363.0	-43.214	-20	PASS
2412	20	2364.0	-43.113	-20	PASS
2412	20	2365.0	-42.986	-20	PASS
2412	20	2366.0	-42.253	-20	PASS
2412	20	2367.0	-43.199	-20	PASS
2412	20	2368.0	-43.048	-20	PASS
2412	20	2369.0	-43.013	-20	PASS
2412	20	2370.0	-42.917	-20	PASS
2412	20	2371.0	-42.716	-20	PASS
2412	20	2372.0	-42.459	-20	PASS
2412	20	2373.0	-43.118	-20	PASS
2412	20	2374.0	-43.107	-20	PASS
2412	20	2375.0	-43.278	-20	PASS
2412	20	2376.0	-43.015	-20	PASS
2412	20	2377.0	-43.010	-20	PASS
2412	20	2378.0	-42.621	-20	PASS

2412	20	2379.0	-42.651	-20	PASS
2472	20	2483.5	-28.454	-10	PASS
2472	20	2484.5	-31.053	-10	PASS
2472	20	2485.5	-32.058	-10	PASS
2472	20	2486.5	-33.050	-10	PASS
2472	20	2487.5	-34.257	-10	PASS
2472	20	2488.5	-35.550	-10	PASS
2472	20	2489.5	-36.475	-10	PASS
2472	20	2490.5	-36.228	-10	PASS
2472	20	2491.5	-36.522	-10	PASS
2472	20	2492.5	-38.411	-10	PASS
2472	20	2493.5	-39.713	-10	PASS
2472	20	2494.5	-40.035	-10	PASS
2472	20	2495.5	-39.626	-10	PASS
2472	20	2496.5	-42.639	-10	PASS
2472	20	2497.5	-42.429	-10	PASS
2472	20	2498.5	-43.078	-10	PASS
2472	20	2499.5	-43.325	-10	PASS
2472	20	2500.5	-43.522	-10	PASS
2472	20	2501.5	-43.153	-10	PASS
2472	20	2502.5	-43.050	-10	PASS
2472	20	2503.5	-43.036	-10	PASS
2472	20	2504.5	-42.129	-20	PASS
2472	20	2505.5	-42.877	-20	PASS
2472	20	2506.5	-43.530	-20	PASS
2472	20	2507.5	-43.546	-20	PASS
2472	20	2508.5	-43.524	-20	PASS
2472	20	2509.5	-43.537	-20	PASS
2472	20	2510.5	-43.807	-20	PASS
2472	20	2511.5	-42.742	-20	PASS
2472	20	2512.5	-43.685	-20	PASS
2472	20	2513.5	-43.771	-20	PASS
2472	20	2514.5	-44.042	-20	PASS
2472	20	2515.5	-43.934	-20	PASS
2472	20	2516.5	-44.172	-20	PASS
2472	20	2517.5	-43.636	-20	PASS
2472	20	2518.5	-43.266	-20	PASS
2472	20	2519.5	-43.822	-20	PASS
2472	20	2520.5	-43.860	-20	PASS
2472	20	2521.5	-44.248	-20	PASS
2472	20	2522.5	-43.897	-20	PASS

802.11n40

DUT Frequency (MHz)	Nominal Bandwidth (MHz)	Frequency (MHz)	Level (dBm)	Limit (dBm)	Result
2422	40	2360.0	-43.066	-10	PASS
2422	40	2361.0	-43.404	-10	PASS
2422	40	2362.0	-43.135	-10	PASS
2422	40	2363.0	-43.516	-10	PASS
2422	40	2364.0	-43.367	-10	PASS
2422	40	2365.0	-43.539	-10	PASS
2422	40	2366.0	-43.416	-10	PASS
2422	40	2367.0	-43.285	-10	PASS
2422	40	2368.0	-43.047	-10	PASS
2422	40	2369.0	-42.748	-10	PASS
2422	40	2370.0	-42.888	-10	PASS
2422	40	2371.0	-42.063	-10	PASS
2422	40	2372.0	-40.895	-10	PASS
2422	40	2373.0	-40.853	-10	PASS
2422	40	2374.0	-39.870	-10	PASS
2422	40	2375.0	-38.238	-10	PASS
2422	40	2376.0	-38.224	-10	PASS
2422	40	2377.0	-38.235	-10	PASS
2422	40	2378.0	-37.087	-10	PASS
2422	40	2379.0	-37.171	-10	PASS
2422	40	2380.0	-37.165	-10	PASS
2422	40	2381.0	-37.631	-10	PASS
2422	40	2382.0	-36.108	-10	PASS
2422	40	2383.0	-34.168	-10	PASS
2422	40	2384.0	-35.134	-10	PASS
2422	40	2385.0	-35.344	-10	PASS
2422	40	2386.0	-34.523	-10	PASS
2422	40	2387.0	-33.718	-10	PASS
2422	40	2388.0	-33.746	-10	PASS
2422	40	2389.0	-33.233	-10	PASS
2422	40	2390.0	-34.407	-10	PASS
2422	40	2391.0	-31.590	-10	PASS
2422	40	2392.0	-33.214	-10	PASS
2422	40	2393.0	-31.642	-10	PASS
2422	40	2394.0	-30.137	-10	PASS
2422	40	2395.0	-33.984	-10	PASS
2422	40	2396.0	-33.249	-10	PASS
2422	40	2397.0	-31.885	-10	PASS
2422	40	2398.0	-29.633	-10	PASS
2422	40	2399.0	-30.777	-10	PASS

2422	40	2400.0	-31.355	-10	PASS
2422	40	2320.0	-43.811	-20	PASS
2422	40	2321.0	-43.819	-20	PASS
2422	40	2322.0	-44.276	-20	PASS
2422	40	2323.0	-43.637	-20	PASS
2422	40	2324.0	-43.388	-20	PASS
2422	40	2325.0	-43.574	-20	PASS
2422	40	2326.0	-44.040	-20	PASS
2422	40	2327.0	-44.288	-20	PASS
2422	40	2328.0	-43.344	-20	PASS
2422	40	2329.0	-44.158	-20	PASS
2422	40	2330.0	-44.013	-20	PASS
2422	40	2331.0	-43.639	-20	PASS
2422	40	2332.0	-43.956	-20	PASS
2422	40	2333.0	-44.080	-20	PASS
2422	40	2334.0	-43.793	-20	PASS
2422	40	2335.0	-44.041	-20	PASS
2422	40	2336.0	-44.002	-20	PASS
2422	40	2337.0	-43.700	-20	PASS
2422	40	2338.0	-44.239	-20	PASS
2422	40	2339.0	-43.572	-20	PASS
2422	40	2340.0	-43.646	-20	PASS
2422	40	2341.0	-44.005	-20	PASS
2422	40	2342.0	-43.223	-20	PASS
2422	40	2343.0	-43.605	-20	PASS
2422	40	2344.0	-43.714	-20	PASS
2422	40	2345.0	-44.160	-20	PASS
2422	40	2346.0	-44.165	-20	PASS
2422	40	2347.0	-44.008	-20	PASS
2422	40	2348.0	-43.698	-20	PASS
2422	40	2349.0	-43.529	-20	PASS
2422	40	2350.0	-43.958	-20	PASS
2422	40	2351.0	-43.681	-20	PASS
2422	40	2352.0	-43.769	-20	PASS
2422	40	2353.0	-43.627	-20	PASS
2422	40	2354.0	-43.349	-20	PASS
2422	40	2355.0	-43.746	-20	PASS
2422	40	2356.0	-43.655	-20	PASS
2422	40	2357.0	-43.435	-20	PASS
2422	40	2358.0	-43.275	-20	PASS
2422	40	2359.0	-43.281	-20	PASS
2462	40	2483.5	-32.527	-10	PASS
2462	40	2484.5	-34.381	-10	PASS
2462	40	2485.5	-33.970	-10	PASS
2462	40	2486.5	-35.455	-10	PASS

2462	40	2487.5	-34.758	-10	PASS
2462	40	2488.5	-34.946	-10	PASS
2462	40	2489.5	-35.378	-10	PASS
2462	40	2490.5	-35.678	-10	PASS
2462	40	2491.5	-35.433	-10	PASS
2462	40	2492.5	-36.820	-10	PASS
2462	40	2493.5	-36.594	-10	PASS
2462	40	2494.5	-37.596	-10	PASS
2462	40	2495.5	-36.467	-10	PASS
2462	40	2496.5	-37.115	-10	PASS
2462	40	2497.5	-36.315	-10	PASS
2462	40	2498.5	-38.391	-10	PASS
2462	40	2499.5	-38.385	-10	PASS
2462	40	2500.5	-38.623	-10	PASS
2462	40	2501.5	-39.240	-10	PASS
2462	40	2502.5	-39.133	-10	PASS
2462	40	2503.5	-39.175	-10	PASS
2462	40	2504.5	-39.903	-10	PASS
2462	40	2505.5	-39.761	-10	PASS
2462	40	2506.5	-39.359	-10	PASS
2462	40	2507.5	-40.572	-10	PASS
2462	40	2508.5	-40.355	-10	PASS
2462	40	2509.5	-41.085	-10	PASS
2462	40	2510.5	-41.446	-10	PASS
2462	40	2511.5	-41.570	-10	PASS
2462	40	2512.5	-42.028	-10	PASS
2462	40	2513.5	-42.951	-10	PASS
2462	40	2514.5	-42.668	-10	PASS
2462	40	2515.5	-42.596	-10	PASS
2462	40	2516.5	-42.913	-10	PASS
2462	40	2517.5	-43.106	-10	PASS
2462	40	2518.5	-43.255	-10	PASS
2462	40	2519.5	-43.245	-10	PASS
2462	40	2520.5	-43.392	-10	PASS
2462	40	2521.5	-43.661	-10	PASS
2462	40	2522.5	-43.901	-10	PASS
2462	40	2523.5	-42.831	-10	PASS
2462	40	2524.5	-43.364	-20	PASS
2462	40	2525.5	-43.639	-20	PASS
2462	40	2526.5	-43.620	-20	PASS
2462	40	2527.5	-43.636	-20	PASS
2462	40	2528.5	-43.627	-20	PASS
2462	40	2529.5	-43.928	-20	PASS
2462	40	2530.5	-43.804	-20	PASS
2462	40	2531.5	-44.143	-20	PASS

2462	40	2532.5	-43.999	-20	PASS
2462	40	2533.5	-44.397	-20	PASS
2462	40	2534.5	-43.958	-20	PASS
2462	40	2535.5	-44.333	-20	PASS
2462	40	2536.5	-44.328	-20	PASS
2462	40	2537.5	-43.778	-20	PASS
2462	40	2538.5	-43.994	-20	PASS
2462	40	2539.5	-44.781	-20	PASS
2462	40	2540.5	-44.491	-20	PASS
2462	40	2541.5	-43.110	-20	PASS
2462	40	2542.5	-44.192	-20	PASS
2462	40	2543.5	-44.491	-20	PASS
2462	40	2544.5	-44.509	-20	PASS
2462	40	2545.5	-44.488	-20	PASS
2462	40	2546.5	-44.286	-20	PASS
2462	40	2547.5	-44.302	-20	PASS
2462	40	2548.5	-44.391	-20	PASS
2462	40	2549.5	-44.087	-20	PASS
2462	40	2550.5	-44.603	-20	PASS
2462	40	2551.5	-44.178	-20	PASS
2462	40	2552.5	-44.052	-20	PASS
2462	40	2553.5	-44.071	-20	PASS
2462	40	2554.5	-44.313	-20	PASS
2462	40	2555.5	-44.289	-20	PASS
2462	40	2556.5	-43.743	-20	PASS
2462	40	2557.5	-44.802	-20	PASS
2462	40	2558.5	-44.556	-20	PASS
2462	40	2559.5	-44.483	-20	PASS
2462	40	2560.5	-44.334	-20	PASS
2462	40	2561.5	-43.901	-20	PASS
2462	40	2562.5	-44.436	-20	PASS
2462	40	2563.5	-44.707	-20	PASS

Aux. Antenna

802.11b

DUT Frequency (MHz)	Nominal Bandwidth (MHz)	Frequency (MHz)	Level (dBm)	Limit (dBm)	Result
2412	20	2380.0	-43.608	-10	PASS
2412	20	2381.0	-43.749	-10	PASS
2412	20	2382.0	-42.941	-10	PASS
2412	20	2383.0	-43.805	-10	PASS
2412	20	2384.0	-43.676	-10	PASS
2412	20	2385.0	-43.605	-10	PASS
2412	20	2386.0	-43.069	-10	PASS
2412	20	2387.0	-43.218	-10	PASS
2412	20	2388.0	-43.555	-10	PASS
2412	20	2389.0	-43.151	-10	PASS
2412	20	2390.0	-42.913	-10	PASS
2412	20	2391.0	-43.434	-10	PASS
2412	20	2392.0	-42.976	-10	PASS
2412	20	2393.0	-42.063	-10	PASS
2412	20	2394.0	-40.618	-10	PASS
2412	20	2395.0	-39.860	-10	PASS
2412	20	2396.0	-39.257	-10	PASS
2412	20	2397.0	-36.123	-10	PASS
2412	20	2398.0	-33.980	-10	PASS
2412	20	2399.0	-31.562	-10	PASS
2412	20	2400.0	-30.901	-10	PASS
2412	20	2360.0	-43.908	-20	PASS
2412	20	2361.0	-43.707	-20	PASS
2412	20	2362.0	-43.852	-20	PASS
2412	20	2363.0	-43.656	-20	PASS
2412	20	2364.0	-43.788	-20	PASS
2412	20	2365.0	-44.025	-20	PASS
2412	20	2366.0	-43.434	-20	PASS
2412	20	2367.0	-43.253	-20	PASS
2412	20	2368.0	-43.553	-20	PASS
2412	20	2369.0	-43.475	-20	PASS
2412	20	2370.0	-43.428	-20	PASS
2412	20	2371.0	-43.484	-20	PASS
2412	20	2372.0	-43.101	-20	PASS
2412	20	2373.0	-43.237	-20	PASS
2412	20	2374.0	-43.801	-20	PASS
2412	20	2375.0	-42.871	-20	PASS
2412	20	2376.0	-43.747	-20	PASS
2412	20	2377.0	-43.543	-20	PASS
2412	20	2378.0	-43.716	-20	PASS

2412	20	2379.0	-43.589	-20	PASS
2472	20	2483.5	-32.669	-10	PASS
2472	20	2484.5	-32.987	-10	PASS
2472	20	2485.5	-34.964	-10	PASS
2472	20	2486.5	-36.189	-10	PASS
2472	20	2487.5	-38.711	-10	PASS
2472	20	2488.5	-39.991	-10	PASS
2472	20	2489.5	-40.889	-10	PASS
2472	20	2490.5	-42.693	-10	PASS
2472	20	2491.5	-42.819	-10	PASS
2472	20	2492.5	-43.450	-10	PASS
2472	20	2493.5	-43.324	-10	PASS
2472	20	2494.5	-43.785	-10	PASS
2472	20	2495.5	-43.762	-10	PASS
2472	20	2496.5	-43.651	-10	PASS
2472	20	2497.5	-43.642	-10	PASS
2472	20	2498.5	-43.841	-10	PASS
2472	20	2499.5	-43.795	-10	PASS
2472	20	2500.5	-43.529	-10	PASS
2472	20	2501.5	-43.030	-10	PASS
2472	20	2502.5	-43.948	-10	PASS
2472	20	2503.5	-42.898	-10	PASS
2472	20	2504.5	-42.985	-20	PASS
2472	20	2505.5	-42.691	-20	PASS
2472	20	2506.5	-42.959	-20	PASS
2472	20	2507.5	-42.324	-20	PASS
2472	20	2508.5	-42.134	-20	PASS
2472	20	2509.5	-42.375	-20	PASS
2472	20	2510.5	-42.109	-20	PASS
2472	20	2511.5	-42.583	-20	PASS
2472	20	2512.5	-42.629	-20	PASS
2472	20	2513.5	-42.959	-20	PASS
2472	20	2514.5	-43.346	-20	PASS
2472	20	2515.5	-43.479	-20	PASS
2472	20	2516.5	-43.523	-20	PASS
2472	20	2517.5	-43.526	-20	PASS
2472	20	2518.5	-43.559	-20	PASS
2472	20	2519.5	-43.615	-20	PASS
2472	20	2520.5	-43.440	-20	PASS
2472	20	2521.5	-43.695	-20	PASS
2472	20	2522.5	-43.520	-20	PASS

802.11g

DUT Frequency (MHz)	Nominal Bandwidth (MHz)	Frequency (MHz)	Level (dBm)	Limit (dBm)	Result
2412	20	2380.0	-42.240	-10	PASS
2412	20	2381.0	-41.915	-10	PASS
2412	20	2382.0	-41.734	-10	PASS
2412	20	2383.0	-40.371	-10	PASS
2412	20	2384.0	-40.265	-10	PASS
2412	20	2385.0	-39.858	-10	PASS
2412	20	2386.0	-39.222	-10	PASS
2412	20	2387.0	-39.263	-10	PASS
2412	20	2388.0	-37.956	-10	PASS
2412	20	2389.0	-36.058	-10	PASS
2412	20	2390.0	-32.881	-10	PASS
2412	20	2391.0	-30.900	-10	PASS
2412	20	2392.0	-30.515	-10	PASS
2412	20	2393.0	-29.706	-10	PASS
2412	20	2394.0	-26.864	-10	PASS
2412	20	2395.0	-27.233	-10	PASS
2412	20	2396.0	-24.916	-10	PASS
2412	20	2397.0	-25.968	-10	PASS
2412	20	2398.0	-23.534	-10	PASS
2412	20	2399.0	-24.313	-10	PASS
2412	20	2400.0	-21.208	-10	PASS
2412	20	2360.0	-43.856	-20	PASS
2412	20	2361.0	-44.024	-20	PASS
2412	20	2362.0	-42.923	-20	PASS
2412	20	2363.0	-43.351	-20	PASS
2412	20	2364.0	-43.447	-20	PASS
2412	20	2365.0	-42.970	-20	PASS
2412	20	2366.0	-43.105	-20	PASS
2412	20	2367.0	-42.799	-20	PASS
2412	20	2368.0	-43.263	-20	PASS
2412	20	2369.0	-43.088	-20	PASS
2412	20	2370.0	-42.856	-20	PASS
2412	20	2371.0	-42.922	-20	PASS
2412	20	2372.0	-43.054	-20	PASS
2412	20	2373.0	-43.281	-20	PASS
2412	20	2374.0	-42.765	-20	PASS
2412	20	2375.0	-42.638	-20	PASS
2412	20	2376.0	-42.237	-20	PASS
2412	20	2377.0	-42.424	-20	PASS
2412	20	2378.0	-42.502	-20	PASS

2412	20	2379.0	-42.465	-20	PASS
2472	20	2483.5	-44.103	-10	PASS
2472	20	2484.5	-44.229	-10	PASS
2472	20	2485.5	-43.725	-10	PASS
2472	20	2486.5	-43.775	-10	PASS
2472	20	2487.5	-43.773	-10	PASS
2472	20	2488.5	-44.011	-10	PASS
2472	20	2489.5	-44.142	-10	PASS
2472	20	2490.5	-43.842	-10	PASS
2472	20	2491.5	-44.382	-10	PASS
2472	20	2492.5	-44.270	-10	PASS
2472	20	2493.5	-44.204	-10	PASS
2472	20	2494.5	-43.537	-10	PASS
2472	20	2495.5	-43.670	-10	PASS
2472	20	2496.5	-44.012	-10	PASS
2472	20	2497.5	-44.088	-10	PASS
2472	20	2498.5	-44.320	-10	PASS
2472	20	2499.5	-43.972	-10	PASS
2472	20	2500.5	-44.011	-10	PASS
2472	20	2501.5	-43.944	-10	PASS
2472	20	2502.5	-44.020	-10	PASS
2472	20	2503.5	-43.691	-10	PASS
2472	20	2504.5	-44.355	-20	PASS
2472	20	2505.5	-44.475	-20	PASS
2472	20	2506.5	-44.159	-20	PASS
2472	20	2507.5	-44.057	-20	PASS
2472	20	2508.5	-44.195	-20	PASS
2472	20	2509.5	-44.162	-20	PASS
2472	20	2510.5	-44.338	-20	PASS
2472	20	2511.5	-44.157	-20	PASS
2472	20	2512.5	-44.328	-20	PASS
2472	20	2513.5	-43.219	-20	PASS
2472	20	2514.5	-44.141	-20	PASS
2472	20	2515.5	-44.009	-20	PASS
2472	20	2516.5	-44.273	-20	PASS
2472	20	2517.5	-43.633	-20	PASS
2472	20	2518.5	-43.620	-20	PASS
2472	20	2519.5	-43.930	-20	PASS
2472	20	2520.5	-43.770	-20	PASS
2472	20	2521.5	-43.854	-20	PASS
2472	20	2522.5	-44.106	-20	PASS

802.11n20

DUT Frequency (MHz)	Nominal Bandwidth (MHz)	Frequency (MHz)	Level (dBm)	Limit (dBm)	Result
2412	20	2380.0	-40.220	-10	PASS
2412	20	2381.0	-41.184	-10	PASS
2412	20	2382.0	-41.109	-10	PASS
2412	20	2383.0	-39.980	-10	PASS
2412	20	2384.0	-38.790	-10	PASS
2412	20	2385.0	-38.973	-10	PASS
2412	20	2386.0	-38.884	-10	PASS
2412	20	2387.0	-39.134	-10	PASS
2412	20	2388.0	-36.849	-10	PASS
2412	20	2389.0	-33.095	-10	PASS
2412	20	2390.0	-28.666	-10	PASS
2412	20	2391.0	-26.365	-10	PASS
2412	20	2392.0	-26.560	-10	PASS
2412	20	2393.0	-27.075	-10	PASS
2412	20	2394.0	-28.291	-10	PASS
2412	20	2395.0	-27.763	-10	PASS
2412	20	2396.0	-26.344	-10	PASS
2412	20	2397.0	-23.619	-10	PASS
2412	20	2398.0	-23.679	-10	PASS
2412	20	2399.0	-23.538	-10	PASS
2412	20	2400.0	-22.658	-10	PASS
2412	20	2360.0	-43.931	-20	PASS
2412	20	2361.0	-43.599	-20	PASS
2412	20	2362.0	-43.837	-20	PASS
2412	20	2363.0	-43.512	-20	PASS
2412	20	2364.0	-43.281	-20	PASS
2412	20	2365.0	-43.021	-20	PASS
2412	20	2366.0	-43.472	-20	PASS
2412	20	2367.0	-42.940	-20	PASS
2412	20	2368.0	-42.914	-20	PASS
2412	20	2369.0	-43.121	-20	PASS
2412	20	2370.0	-43.149	-20	PASS
2412	20	2371.0	-43.071	-20	PASS
2412	20	2372.0	-42.579	-20	PASS
2412	20	2373.0	-43.016	-20	PASS
2412	20	2374.0	-42.978	-20	PASS
2412	20	2375.0	-42.676	-20	PASS
2412	20	2376.0	-42.372	-20	PASS
2412	20	2377.0	-42.012	-20	PASS
2412	20	2378.0	-42.084	-20	PASS

2412	20	2379.0	-40.325	-20	PASS
2472	20	2483.5	-21.505	-10	PASS
2472	20	2484.5	-23.407	-10	PASS
2472	20	2485.5	-24.161	-10	PASS
2472	20	2486.5	-25.004	-10	PASS
2472	20	2487.5	-25.211	-10	PASS
2472	20	2488.5	-27.904	-10	PASS
2472	20	2489.5	-28.475	-10	PASS
2472	20	2490.5	-27.602	-10	PASS
2472	20	2491.5	-27.250	-10	PASS
2472	20	2492.5	-28.876	-10	PASS
2472	20	2493.5	-32.139	-10	PASS
2472	20	2494.5	-33.599	-10	PASS
2472	20	2495.5	-34.835	-10	PASS
2472	20	2496.5	-38.114	-10	PASS
2472	20	2497.5	-39.177	-10	PASS
2472	20	2498.5	-39.381	-10	PASS
2472	20	2499.5	-39.829	-10	PASS
2472	20	2500.5	-41.173	-10	PASS
2472	20	2501.5	-40.735	-10	PASS
2472	20	2502.5	-40.848	-10	PASS
2472	20	2503.5	-40.361	-10	PASS
2472	20	2504.5	-40.859	-20	PASS
2472	20	2505.5	-41.022	-20	PASS
2472	20	2506.5	-41.785	-20	PASS
2472	20	2507.5	-42.503	-20	PASS
2472	20	2508.5	-42.603	-20	PASS
2472	20	2509.5	-42.372	-20	PASS
2472	20	2510.5	-42.740	-20	PASS
2472	20	2511.5	-42.891	-20	PASS
2472	20	2512.5	-42.979	-20	PASS
2472	20	2513.5	-42.740	-20	PASS
2472	20	2514.5	-42.770	-20	PASS
2472	20	2515.5	-42.603	-20	PASS
2472	20	2516.5	-42.903	-20	PASS
2472	20	2517.5	-42.951	-20	PASS
2472	20	2518.5	-42.992	-20	PASS
2472	20	2519.5	-43.367	-20	PASS
2472	20	2520.5	-43.538	-20	PASS
2472	20	2521.5	-44.075	-20	PASS
2472	20	2522.5	-43.550	-20	PASS

802.11n40

DUT Frequency (MHz)	Nominal Bandwidth (MHz)	Frequency (MHz)	Level (dBm)	Limit (dBm)	Result
2422	40	2360.0	-41.716	-10	PASS
2422	40	2361.0	-42.895	-10	PASS
2422	40	2362.0	-42.738	-10	PASS
2422	40	2363.0	-41.679	-10	PASS
2422	40	2364.0	-41.932	-10	PASS
2422	40	2365.0	-41.706	-10	PASS
2422	40	2366.0	-42.210	-10	PASS
2422	40	2367.0	-40.789	-10	PASS
2422	40	2368.0	-41.285	-10	PASS
2422	40	2369.0	-41.458	-10	PASS
2422	40	2370.0	-39.425	-10	PASS
2422	40	2371.0	-39.339	-10	PASS
2422	40	2372.0	-38.952	-10	PASS
2422	40	2373.0	-37.734	-10	PASS
2422	40	2374.0	-37.612	-10	PASS
2422	40	2375.0	-35.645	-10	PASS
2422	40	2376.0	-35.438	-10	PASS
2422	40	2377.0	-35.166	-10	PASS
2422	40	2378.0	-33.360	-10	PASS
2422	40	2379.0	-33.066	-10	PASS
2422	40	2380.0	-33.466	-10	PASS
2422	40	2381.0	-33.562	-10	PASS
2422	40	2382.0	-31.108	-10	PASS
2422	40	2383.0	-30.206	-10	PASS
2422	40	2384.0	-30.945	-10	PASS
2422	40	2385.0	-30.295	-10	PASS
2422	40	2386.0	-28.623	-10	PASS
2422	40	2387.0	-28.804	-10	PASS
2422	40	2388.0	-28.999	-10	PASS
2422	40	2389.0	-28.002	-10	PASS
2422	40	2390.0	-29.119	-10	PASS
2422	40	2391.0	-26.201	-10	PASS
2422	40	2392.0	-27.850	-10	PASS
2422	40	2393.0	-26.250	-10	PASS
2422	40	2394.0	-24.246	-10	PASS
2422	40	2395.0	-28.007	-10	PASS
2422	40	2396.0	-27.488	-10	PASS
2422	40	2397.0	-25.613	-10	PASS
2422	40	2398.0	-23.791	-10	PASS
2422	40	2399.0	-24.977	-10	PASS

2422	40	2400.0	-25.225	-10	PASS
2422	40	2320.0	-43.967	-20	PASS
2422	40	2321.0	-43.998	-20	PASS
2422	40	2322.0	-44.185	-20	PASS
2422	40	2323.0	-44.139	-20	PASS
2422	40	2324.0	-44.117	-20	PASS
2422	40	2325.0	-44.325	-20	PASS
2422	40	2326.0	-43.920	-20	PASS
2422	40	2327.0	-43.917	-20	PASS
2422	40	2328.0	-43.902	-20	PASS
2422	40	2329.0	-43.989	-20	PASS
2422	40	2330.0	-43.771	-20	PASS
2422	40	2331.0	-43.843	-20	PASS
2422	40	2332.0	-43.700	-20	PASS
2422	40	2333.0	-43.399	-20	PASS
2422	40	2334.0	-43.813	-20	PASS
2422	40	2335.0	-44.130	-20	PASS
2422	40	2336.0	-43.714	-20	PASS
2422	40	2337.0	-43.199	-20	PASS
2422	40	2338.0	-43.554	-20	PASS
2422	40	2339.0	-43.729	-20	PASS
2422	40	2340.0	-43.563	-20	PASS
2422	40	2341.0	-43.261	-20	PASS
2422	40	2342.0	-43.452	-20	PASS
2422	40	2343.0	-44.023	-20	PASS
2422	40	2344.0	-43.479	-20	PASS
2422	40	2345.0	-43.625	-20	PASS
2422	40	2346.0	-43.551	-20	PASS
2422	40	2347.0	-43.526	-20	PASS
2422	40	2348.0	-43.616	-20	PASS
2422	40	2349.0	-43.724	-20	PASS
2422	40	2350.0	-43.483	-20	PASS
2422	40	2351.0	-43.554	-20	PASS
2422	40	2352.0	-43.248	-20	PASS
2422	40	2353.0	-42.937	-20	PASS
2422	40	2354.0	-42.478	-20	PASS
2422	40	2355.0	-43.167	-20	PASS
2422	40	2356.0	-42.724	-20	PASS
2422	40	2357.0	-42.741	-20	PASS
2422	40	2358.0	-41.676	-20	PASS
2422	40	2359.0	-42.401	-20	PASS
2462	40	2483.5	-23.592	-10	PASS
2462	40	2484.5	-26.194	-10	PASS
2462	40	2485.5	-26.746	-10	PASS
2462	40	2486.5	-28.608	-10	PASS

2462	40	2487.5	-26.882	-10	PASS
2462	40	2488.5	-27.312	-10	PASS
2462	40	2489.5	-28.547	-10	PASS
2462	40	2490.5	-28.589	-10	PASS
2462	40	2491.5	-28.744	-10	PASS
2462	40	2492.5	-28.533	-10	PASS
2462	40	2493.5	-30.486	-10	PASS
2462	40	2494.5	-31.044	-10	PASS
2462	40	2495.5	-29.332	-10	PASS
2462	40	2496.5	-30.569	-10	PASS
2462	40	2497.5	-30.011	-10	PASS
2462	40	2498.5	-32.504	-10	PASS
2462	40	2499.5	-32.416	-10	PASS
2462	40	2500.5	-32.666	-10	PASS
2462	40	2501.5	-34.008	-10	PASS
2462	40	2502.5	-32.859	-10	PASS
2462	40	2503.5	-34.360	-10	PASS
2462	40	2504.5	-35.489	-10	PASS
2462	40	2505.5	-34.531	-10	PASS
2462	40	2506.5	-34.594	-10	PASS
2462	40	2507.5	-36.227	-10	PASS
2462	40	2508.5	-37.395	-10	PASS
2462	40	2509.5	-38.536	-10	PASS
2462	40	2510.5	-38.623	-10	PASS
2462	40	2511.5	-38.757	-10	PASS
2462	40	2512.5	-39.951	-10	PASS
2462	40	2513.5	-40.778	-10	PASS
2462	40	2514.5	-41.110	-10	PASS
2462	40	2515.5	-41.593	-10	PASS
2462	40	2516.5	-41.038	-10	PASS
2462	40	2517.5	-42.268	-10	PASS
2462	40	2518.5	-42.498	-10	PASS
2462	40	2519.5	-42.458	-10	PASS
2462	40	2520.5	-42.363	-10	PASS
2462	40	2521.5	-43.132	-10	PASS
2462	40	2522.5	-43.289	-10	PASS
2462	40	2523.5	-42.903	-10	PASS
2462	40	2524.5	-42.327	-20	PASS
2462	40	2525.5	-42.896	-20	PASS
2462	40	2526.5	-42.760	-20	PASS
2462	40	2527.5	-42.942	-20	PASS
2462	40	2528.5	-42.563	-20	PASS
2462	40	2529.5	-43.071	-20	PASS
2462	40	2530.5	-42.973	-20	PASS
2462	40	2531.5	-43.378	-20	PASS

2462	40	2532.5	-42.690	-20	PASS
2462	40	2533.5	-43.242	-20	PASS
2462	40	2534.5	-43.400	-20	PASS
2462	40	2535.5	-43.387	-20	PASS
2462	40	2536.5	-43.624	-20	PASS
2462	40	2537.5	-43.495	-20	PASS
2462	40	2538.5	-42.944	-20	PASS
2462	40	2539.5	-43.186	-20	PASS
2462	40	2540.5	-43.587	-20	PASS
2462	40	2541.5	-43.696	-20	PASS
2462	40	2542.5	-42.993	-20	PASS
2462	40	2543.5	-43.488	-20	PASS
2462	40	2544.5	-44.088	-20	PASS
2462	40	2545.5	-43.628	-20	PASS
2462	40	2546.5	-43.569	-20	PASS
2462	40	2547.5	-43.870	-20	PASS
2462	40	2548.5	-43.464	-20	PASS
2462	40	2549.5	-43.737	-20	PASS
2462	40	2550.5	-43.694	-20	PASS
2462	40	2551.5	-43.627	-20	PASS
2462	40	2552.5	-43.892	-20	PASS
2462	40	2553.5	-43.705	-20	PASS
2462	40	2554.5	-43.998	-20	PASS
2462	40	2555.5	-43.962	-20	PASS
2462	40	2556.5	-44.047	-20	PASS
2462	40	2557.5	-43.075	-20	PASS
2462	40	2558.5	-43.827	-20	PASS
2462	40	2559.5	-43.469	-20	PASS
2462	40	2560.5	-44.376	-20	PASS
2462	40	2561.5	-44.298	-20	PASS
2462	40	2562.5	-43.771	-20	PASS
2462	40	2563.5	-43.851	-20	PASS

MIMO-Main Antenna

802.11n20

DUT Frequency (MHz)	Nominal Bandwidth (MHz)	Frequency (MHz)	Level (dBm)	Limit (dBm)	Result
2412	20	2380.0	-43.639	-10	PASS
2412	20	2381.0	-43.008	-10	PASS
2412	20	2382.0	-43.942	-10	PASS
2412	20	2383.0	-44.005	-10	PASS
2412	20	2384.0	-43.775	-10	PASS
2412	20	2385.0	-43.675	-10	PASS
2412	20	2386.0	-44.000	-10	PASS
2412	20	2387.0	-43.739	-10	PASS
2412	20	2388.0	-42.656	-10	PASS
2412	20	2389.0	-42.872	-10	PASS
2412	20	2390.0	-40.903	-10	PASS
2412	20	2391.0	-39.303	-10	PASS
2412	20	2392.0	-39.585	-10	PASS
2412	20	2393.0	-40.348	-10	PASS
2412	20	2394.0	-40.510	-10	PASS
2412	20	2395.0	-40.610	-10	PASS
2412	20	2396.0	-39.392	-10	PASS
2412	20	2397.0	-37.555	-10	PASS
2412	20	2398.0	-37.194	-10	PASS
2412	20	2399.0	-37.334	-10	PASS
2412	20	2400.0	-37.302	-10	PASS
2412	20	2360.0	-44.398	-20	PASS
2412	20	2361.0	-44.244	-20	PASS
2412	20	2362.0	-44.485	-20	PASS
2412	20	2363.0	-43.302	-20	PASS
2412	20	2364.0	-43.826	-20	PASS
2412	20	2365.0	-42.984	-20	PASS
2412	20	2366.0	-43.325	-20	PASS
2412	20	2367.0	-43.782	-20	PASS
2412	20	2368.0	-43.728	-20	PASS
2412	20	2369.0	-43.832	-20	PASS
2412	20	2370.0	-43.837	-20	PASS
2412	20	2371.0	-43.329	-20	PASS
2412	20	2372.0	-43.244	-20	PASS
2412	20	2373.0	-43.437	-20	PASS
2412	20	2374.0	-43.080	-20	PASS
2412	20	2375.0	-43.828	-20	PASS
2412	20	2376.0	-43.845	-20	PASS
2412	20	2377.0	-43.318	-20	PASS
2412	20	2378.0	-43.484	-20	PASS

2412	20	2379.0	-43.704	-20	PASS
2472	20	2483.5	-31.243	-10	PASS
2472	20	2484.5	-34.036	-10	PASS
2472	20	2485.5	-34.918	-10	PASS
2472	20	2486.5	-35.965	-10	PASS
2472	20	2487.5	-37.266	-10	PASS
2472	20	2488.5	-38.595	-10	PASS
2472	20	2489.5	-39.550	-10	PASS
2472	20	2490.5	-39.289	-10	PASS
2472	20	2491.5	-39.397	-10	PASS
2472	20	2492.5	-40.966	-10	PASS
2472	20	2493.5	-41.482	-10	PASS
2472	20	2494.5	-43.251	-10	PASS
2472	20	2495.5	-43.685	-10	PASS
2472	20	2496.5	-43.898	-10	PASS
2472	20	2497.5	-43.716	-10	PASS
2472	20	2498.5	-44.229	-10	PASS
2472	20	2499.5	-44.244	-10	PASS
2472	20	2500.5	-44.247	-10	PASS
2472	20	2501.5	-44.162	-10	PASS
2472	20	2502.5	-44.183	-10	PASS
2472	20	2503.5	-43.400	-10	PASS
2472	20	2504.5	-43.611	-20	PASS
2472	20	2505.5	-43.144	-20	PASS
2472	20	2506.5	-43.380	-20	PASS
2472	20	2507.5	-43.514	-20	PASS
2472	20	2508.5	-43.833	-20	PASS
2472	20	2509.5	-43.710	-20	PASS
2472	20	2510.5	-43.466	-20	PASS
2472	20	2511.5	-44.167	-20	PASS
2472	20	2512.5	-43.548	-20	PASS
2472	20	2513.5	-43.487	-20	PASS
2472	20	2514.5	-43.609	-20	PASS
2472	20	2515.5	-44.041	-20	PASS
2472	20	2516.5	-43.477	-20	PASS
2472	20	2517.5	-44.093	-20	PASS
2472	20	2518.5	-43.691	-20	PASS
2472	20	2519.5	-43.933	-20	PASS
2472	20	2520.5	-44.104	-20	PASS
2472	20	2521.5	-44.770	-20	PASS
2472	20	2522.5	-44.617	-20	PASS

802.11n40

DUT Frequency (MHz)	Nominal Bandwidth (MHz)	Frequency (MHz)	Level (dBm)	Limit (dBm)	Result
2422	40	2360.0	-43.479	-10	PASS
2422	40	2361.0	-44.163	-10	PASS
2422	40	2362.0	-44.315	-10	PASS
2422	40	2363.0	-43.594	-10	PASS
2422	40	2364.0	-44.167	-10	PASS
2422	40	2365.0	-43.730	-10	PASS
2422	40	2366.0	-44.058	-10	PASS
2422	40	2367.0	-43.596	-10	PASS
2422	40	2368.0	-43.768	-10	PASS
2422	40	2369.0	-43.989	-10	PASS
2422	40	2370.0	-43.685	-10	PASS
2422	40	2371.0	-43.768	-10	PASS
2422	40	2372.0	-43.346	-10	PASS
2422	40	2373.0	-43.082	-10	PASS
2422	40	2374.0	-43.114	-10	PASS
2422	40	2375.0	-42.243	-10	PASS
2422	40	2376.0	-42.217	-10	PASS
2422	40	2377.0	-41.821	-10	PASS
2422	40	2378.0	-42.124	-10	PASS
2422	40	2379.0	-40.904	-10	PASS
2422	40	2380.0	-41.548	-10	PASS
2422	40	2381.0	-41.631	-10	PASS
2422	40	2382.0	-40.543	-10	PASS
2422	40	2383.0	-39.490	-10	PASS
2422	40	2384.0	-40.024	-10	PASS
2422	40	2385.0	-40.263	-10	PASS
2422	40	2386.0	-39.568	-10	PASS
2422	40	2387.0	-38.831	-10	PASS
2422	40	2388.0	-39.704	-10	PASS
2422	40	2389.0	-38.940	-10	PASS
2422	40	2390.0	-39.186	-10	PASS
2422	40	2391.0	-37.364	-10	PASS
2422	40	2392.0	-38.757	-10	PASS
2422	40	2393.0	-37.428	-10	PASS
2422	40	2394.0	-36.492	-10	PASS
2422	40	2395.0	-39.301	-10	PASS
2422	40	2396.0	-38.365	-10	PASS
2422	40	2397.0	-38.145	-10	PASS
2422	40	2398.0	-36.111	-10	PASS
2422	40	2399.0	-36.329	-10	PASS

2422	40	2400.0	-36.885	-10	PASS
2422	40	2320.0	-44.303	-20	PASS
2422	40	2321.0	-44.606	-20	PASS
2422	40	2322.0	-44.086	-20	PASS
2422	40	2323.0	-44.747	-20	PASS
2422	40	2324.0	-44.480	-20	PASS
2422	40	2325.0	-44.524	-20	PASS
2422	40	2326.0	-44.471	-20	PASS
2422	40	2327.0	-44.513	-20	PASS
2422	40	2328.0	-44.027	-20	PASS
2422	40	2329.0	-44.725	-20	PASS
2422	40	2330.0	-44.586	-20	PASS
2422	40	2331.0	-44.490	-20	PASS
2422	40	2332.0	-44.310	-20	PASS
2422	40	2333.0	-44.574	-20	PASS
2422	40	2334.0	-44.542	-20	PASS
2422	40	2335.0	-44.091	-20	PASS
2422	40	2336.0	-44.271	-20	PASS
2422	40	2337.0	-44.326	-20	PASS
2422	40	2338.0	-44.153	-20	PASS
2422	40	2339.0	-44.425	-20	PASS
2422	40	2340.0	-44.346	-20	PASS
2422	40	2341.0	-44.491	-20	PASS
2422	40	2342.0	-43.959	-20	PASS
2422	40	2343.0	-44.000	-20	PASS
2422	40	2344.0	-44.332	-20	PASS
2422	40	2345.0	-44.458	-20	PASS
2422	40	2346.0	-44.156	-20	PASS
2422	40	2347.0	-44.323	-20	PASS
2422	40	2348.0	-44.582	-20	PASS
2422	40	2349.0	-43.732	-20	PASS
2422	40	2350.0	-43.738	-20	PASS
2422	40	2351.0	-44.382	-20	PASS
2422	40	2352.0	-44.258	-20	PASS
2422	40	2353.0	-44.095	-20	PASS
2422	40	2354.0	-44.267	-20	PASS
2422	40	2355.0	-44.229	-20	PASS
2422	40	2356.0	-43.841	-20	PASS
2422	40	2357.0	-43.751	-20	PASS
2422	40	2358.0	-43.472	-20	PASS
2422	40	2359.0	-43.678	-20	PASS
2462	40	2483.5	-35.904	-10	PASS
2462	40	2484.5	-36.899	-10	PASS
2462	40	2485.5	-37.362	-10	PASS
2462	40	2486.5	-38.149	-10	PASS

2462	40	2487.5	-38.024	-10	PASS
2462	40	2488.5	-38.203	-10	PASS
2462	40	2489.5	-38.184	-10	PASS
2462	40	2490.5	-39.520	-10	PASS
2462	40	2491.5	-38.806	-10	PASS
2462	40	2492.5	-40.095	-10	PASS
2462	40	2493.5	-39.768	-10	PASS
2462	40	2494.5	-40.091	-10	PASS
2462	40	2495.5	-40.220	-10	PASS
2462	40	2496.5	-40.916	-10	PASS
2462	40	2497.5	-40.349	-10	PASS
2462	40	2498.5	-41.169	-10	PASS
2462	40	2499.5	-40.791	-10	PASS
2462	40	2500.5	-41.084	-10	PASS
2462	40	2501.5	-41.678	-10	PASS
2462	40	2502.5	-41.472	-10	PASS
2462	40	2503.5	-41.472	-10	PASS
2462	40	2504.5	-41.514	-10	PASS
2462	40	2505.5	-41.925	-10	PASS
2462	40	2506.5	-41.959	-10	PASS
2462	40	2507.5	-42.804	-10	PASS
2462	40	2508.5	-42.264	-10	PASS
2462	40	2509.5	-42.620	-10	PASS
2462	40	2510.5	-43.331	-10	PASS
2462	40	2511.5	-43.366	-10	PASS
2462	40	2512.5	-43.162	-10	PASS
2462	40	2513.5	-43.802	-10	PASS
2462	40	2514.5	-43.311	-10	PASS
2462	40	2515.5	-43.600	-10	PASS
2462	40	2516.5	-43.891	-10	PASS
2462	40	2517.5	-43.389	-10	PASS
2462	40	2518.5	-43.715	-10	PASS
2462	40	2519.5	-43.889	-10	PASS
2462	40	2520.5	-44.176	-10	PASS
2462	40	2521.5	-43.977	-10	PASS
2462	40	2522.5	-44.293	-10	PASS
2462	40	2523.5	-43.935	-10	PASS
2462	40	2524.5	-43.888	-20	PASS
2462	40	2525.5	-44.084	-20	PASS
2462	40	2526.5	-44.148	-20	PASS
2462	40	2527.5	-44.281	-20	PASS
2462	40	2528.5	-44.405	-20	PASS
2462	40	2529.5	-44.288	-20	PASS
2462	40	2530.5	-44.393	-20	PASS
2462	40	2531.5	-44.408	-20	PASS

2462	40	2532.5	-44.459	-20	PASS
2462	40	2533.5	-44.678	-20	PASS
2462	40	2534.5	-44.659	-20	PASS
2462	40	2535.5	-44.496	-20	PASS
2462	40	2536.5	-44.219	-20	PASS
2462	40	2537.5	-44.622	-20	PASS
2462	40	2538.5	-44.549	-20	PASS
2462	40	2539.5	-44.669	-20	PASS
2462	40	2540.5	-44.275	-20	PASS
2462	40	2541.5	-43.978	-20	PASS
2462	40	2542.5	-45.023	-20	PASS
2462	40	2543.5	-44.688	-20	PASS
2462	40	2544.5	-44.809	-20	PASS
2462	40	2545.5	-44.630	-20	PASS
2462	40	2546.5	-44.375	-20	PASS
2462	40	2547.5	-44.589	-20	PASS
2462	40	2548.5	-43.712	-20	PASS
2462	40	2549.5	-44.855	-20	PASS
2462	40	2550.5	-44.493	-20	PASS
2462	40	2551.5	-44.684	-20	PASS
2462	40	2552.5	-44.146	-20	PASS
2462	40	2553.5	-44.636	-20	PASS
2462	40	2554.5	-44.021	-20	PASS
2462	40	2555.5	-44.828	-20	PASS
2462	40	2556.5	-44.356	-20	PASS
2462	40	2557.5	-44.889	-20	PASS
2462	40	2558.5	-44.588	-20	PASS
2462	40	2559.5	-44.244	-20	PASS
2462	40	2560.5	-44.758	-20	PASS
2462	40	2561.5	-44.789	-20	PASS
2462	40	2562.5	-44.412	-20	PASS
2462	40	2563.5	-44.782	-20	PASS

MIMO-Aux. Antenna

802.11n20

DUT Frequency (MHz)	Nominal Bandwidth (MHz)	Frequency (MHz)	Level (dBm)	Limit (dBm)	Result
2412	20	2380.0	-43.188	-10	PASS
2412	20	2381.0	-43.830	-10	PASS
2412	20	2382.0	-43.930	-10	PASS
2412	20	2383.0	-43.617	-10	PASS
2412	20	2384.0	-43.563	-10	PASS
2412	20	2385.0	-43.890	-10	PASS
2412	20	2386.0	-42.977	-10	PASS
2412	20	2387.0	-43.105	-10	PASS
2412	20	2388.0	-42.755	-10	PASS
2412	20	2389.0	-41.043	-10	PASS
2412	20	2390.0	-38.035	-10	PASS
2412	20	2391.0	-36.107	-10	PASS
2412	20	2392.0	-36.031	-10	PASS
2412	20	2393.0	-37.279	-10	PASS
2412	20	2394.0	-37.333	-10	PASS
2412	20	2395.0	-36.494	-10	PASS
2412	20	2396.0	-35.822	-10	PASS
2412	20	2397.0	-33.265	-10	PASS
2412	20	2398.0	-33.613	-10	PASS
2412	20	2399.0	-32.254	-10	PASS
2412	20	2400.0	-31.856	-10	PASS
2412	20	2360.0	-44.125	-20	PASS
2412	20	2361.0	-44.092	-20	PASS
2412	20	2362.0	-43.941	-20	PASS
2412	20	2363.0	-43.912	-20	PASS
2412	20	2364.0	-43.628	-20	PASS
2412	20	2365.0	-43.651	-20	PASS
2412	20	2366.0	-43.738	-20	PASS
2412	20	2367.0	-43.329	-20	PASS
2412	20	2368.0	-44.010	-20	PASS
2412	20	2369.0	-44.140	-20	PASS
2412	20	2370.0	-43.557	-20	PASS
2412	20	2371.0	-43.691	-20	PASS
2412	20	2372.0	-43.894	-20	PASS
2412	20	2373.0	-43.617	-20	PASS
2412	20	2374.0	-43.598	-20	PASS
2412	20	2375.0	-43.623	-20	PASS
2412	20	2376.0	-43.615	-20	PASS
2412	20	2377.0	-43.370	-20	PASS
2412	20	2378.0	-43.592	-20	PASS

2412	20	2379.0	-43.869	-20	PASS
2472	20	2483.5	-26.736	-10	PASS
2472	20	2484.5	-28.932	-10	PASS
2472	20	2485.5	-29.000	-10	PASS
2472	20	2486.5	-29.504	-10	PASS
2472	20	2487.5	-30.152	-10	PASS
2472	20	2488.5	-32.774	-10	PASS
2472	20	2489.5	-33.311	-10	PASS
2472	20	2490.5	-32.475	-10	PASS
2472	20	2491.5	-32.297	-10	PASS
2472	20	2492.5	-33.893	-10	PASS
2472	20	2493.5	-36.222	-10	PASS
2472	20	2494.5	-39.003	-10	PASS
2472	20	2495.5	-40.135	-10	PASS
2472	20	2496.5	-42.152	-10	PASS
2472	20	2497.5	-42.589	-10	PASS
2472	20	2498.5	-42.637	-10	PASS
2472	20	2499.5	-43.145	-10	PASS
2472	20	2500.5	-43.802	-10	PASS
2472	20	2501.5	-43.844	-10	PASS
2472	20	2502.5	-42.616	-10	PASS
2472	20	2503.5	-43.126	-10	PASS
2472	20	2504.5	-43.501	-20	PASS
2472	20	2505.5	-43.198	-20	PASS
2472	20	2506.5	-42.984	-20	PASS
2472	20	2507.5	-43.689	-20	PASS
2472	20	2508.5	-43.258	-20	PASS
2472	20	2509.5	-43.532	-20	PASS
2472	20	2510.5	-43.691	-20	PASS
2472	20	2511.5	-43.583	-20	PASS
2472	20	2512.5	-43.819	-20	PASS
2472	20	2513.5	-43.811	-20	PASS
2472	20	2514.5	-43.381	-20	PASS
2472	20	2515.5	-43.267	-20	PASS
2472	20	2516.5	-43.757	-20	PASS
2472	20	2517.5	-42.752	-20	PASS
2472	20	2518.5	-43.730	-20	PASS
2472	20	2519.5	-43.646	-20	PASS
2472	20	2520.5	-43.846	-20	PASS
2472	20	2521.5	-43.509	-20	PASS
2472	20	2522.5	-44.465	-20	PASS

802.11n40

DUT Frequency (MHz)	Nominal Bandwidth (MHz)	Frequency (MHz)	Level (dBm)	Limit (dBm)	Result
2422	40	2360.0	-43.420	-10	PASS
2422	40	2361.0	-43.658	-10	PASS
2422	40	2362.0	-43.690	-10	PASS
2422	40	2363.0	-43.869	-10	PASS
2422	40	2364.0	-43.975	-10	PASS
2422	40	2365.0	-43.472	-10	PASS
2422	40	2366.0	-44.045	-10	PASS
2422	40	2367.0	-43.496	-10	PASS
2422	40	2368.0	-42.997	-10	PASS
2422	40	2369.0	-43.268	-10	PASS
2422	40	2370.0	-42.987	-10	PASS
2422	40	2371.0	-42.559	-10	PASS
2422	40	2372.0	-41.971	-10	PASS
2422	40	2373.0	-41.385	-10	PASS
2422	40	2374.0	-41.222	-10	PASS
2422	40	2375.0	-40.222	-10	PASS
2422	40	2376.0	-39.436	-10	PASS
2422	40	2377.0	-38.688	-10	PASS
2422	40	2378.0	-38.063	-10	PASS
2422	40	2379.0	-37.688	-10	PASS
2422	40	2380.0	-37.680	-10	PASS
2422	40	2381.0	-38.290	-10	PASS
2422	40	2382.0	-36.164	-10	PASS
2422	40	2383.0	-35.032	-10	PASS
2422	40	2384.0	-35.777	-10	PASS
2422	40	2385.0	-35.983	-10	PASS
2422	40	2386.0	-34.826	-10	PASS
2422	40	2387.0	-34.295	-10	PASS
2422	40	2388.0	-34.296	-10	PASS
2422	40	2389.0	-33.100	-10	PASS
2422	40	2390.0	-34.428	-10	PASS
2422	40	2391.0	-32.234	-10	PASS
2422	40	2392.0	-33.873	-10	PASS
2422	40	2393.0	-32.271	-10	PASS
2422	40	2394.0	-30.462	-10	PASS
2422	40	2395.0	-33.394	-10	PASS
2422	40	2396.0	-32.697	-10	PASS
2422	40	2397.0	-32.127	-10	PASS
2422	40	2398.0	-30.554	-10	PASS
2422	40	2399.0	-30.887	-10	PASS

2422	40	2400.0	-31.030	-10	PASS
2422	40	2320.0	-43.650	-20	PASS
2422	40	2321.0	-44.415	-20	PASS
2422	40	2322.0	-44.149	-20	PASS
2422	40	2323.0	-44.021	-20	PASS
2422	40	2324.0	-43.701	-20	PASS
2422	40	2325.0	-44.258	-20	PASS
2422	40	2326.0	-43.979	-20	PASS
2422	40	2327.0	-44.378	-20	PASS
2422	40	2328.0	-44.360	-20	PASS
2422	40	2329.0	-44.274	-20	PASS
2422	40	2330.0	-43.667	-20	PASS
2422	40	2331.0	-44.087	-20	PASS
2422	40	2332.0	-44.198	-20	PASS
2422	40	2333.0	-44.050	-20	PASS
2422	40	2334.0	-44.336	-20	PASS
2422	40	2335.0	-44.244	-20	PASS
2422	40	2336.0	-44.319	-20	PASS
2422	40	2337.0	-44.473	-20	PASS
2422	40	2338.0	-44.083	-20	PASS
2422	40	2339.0	-44.119	-20	PASS
2422	40	2340.0	-44.008	-20	PASS
2422	40	2341.0	-44.456	-20	PASS
2422	40	2342.0	-43.887	-20	PASS
2422	40	2343.0	-44.163	-20	PASS
2422	40	2344.0	-44.238	-20	PASS
2422	40	2345.0	-44.241	-20	PASS
2422	40	2346.0	-44.202	-20	PASS
2422	40	2347.0	-43.652	-20	PASS
2422	40	2348.0	-43.427	-20	PASS
2422	40	2349.0	-43.957	-20	PASS
2422	40	2350.0	-43.955	-20	PASS
2422	40	2351.0	-43.910	-20	PASS
2422	40	2352.0	-43.360	-20	PASS
2422	40	2353.0	-43.954	-20	PASS
2422	40	2354.0	-43.769	-20	PASS
2422	40	2355.0	-43.500	-20	PASS
2422	40	2356.0	-43.934	-20	PASS
2422	40	2357.0	-43.681	-20	PASS
2422	40	2358.0	-43.640	-20	PASS
2422	40	2359.0	-43.802	-20	PASS
2462	40	2483.5	-27.607	-10	PASS
2462	40	2484.5	-29.428	-10	PASS
2462	40	2485.5	-30.543	-10	PASS
2462	40	2486.5	-32.606	-10	PASS

2462	40	2487.5	-31.036	-10	PASS
2462	40	2488.5	-31.368	-10	PASS
2462	40	2489.5	-32.704	-10	PASS
2462	40	2490.5	-32.927	-10	PASS
2462	40	2491.5	-32.836	-10	PASS
2462	40	2492.5	-32.414	-10	PASS
2462	40	2493.5	-34.708	-10	PASS
2462	40	2494.5	-35.271	-10	PASS
2462	40	2495.5	-33.570	-10	PASS
2462	40	2496.5	-34.901	-10	PASS
2462	40	2497.5	-34.418	-10	PASS
2462	40	2498.5	-36.993	-10	PASS
2462	40	2499.5	-36.615	-10	PASS
2462	40	2500.5	-36.869	-10	PASS
2462	40	2501.5	-38.447	-10	PASS
2462	40	2502.5	-37.399	-10	PASS
2462	40	2503.5	-38.782	-10	PASS
2462	40	2504.5	-39.249	-10	PASS
2462	40	2505.5	-39.250	-10	PASS
2462	40	2506.5	-38.878	-10	PASS
2462	40	2507.5	-39.634	-10	PASS
2462	40	2508.5	-41.592	-10	PASS
2462	40	2509.5	-41.476	-10	PASS
2462	40	2510.5	-41.965	-10	PASS
2462	40	2511.5	-42.084	-10	PASS
2462	40	2512.5	-42.055	-10	PASS
2462	40	2513.5	-43.161	-10	PASS
2462	40	2514.5	-43.009	-10	PASS
2462	40	2515.5	-42.658	-10	PASS
2462	40	2516.5	-42.640	-10	PASS
2462	40	2517.5	-43.591	-10	PASS
2462	40	2518.5	-43.407	-10	PASS
2462	40	2519.5	-43.661	-10	PASS
2462	40	2520.5	-43.704	-10	PASS
2462	40	2521.5	-43.947	-10	PASS
2462	40	2522.5	-43.882	-10	PASS
2462	40	2523.5	-44.032	-10	PASS
2462	40	2524.5	-43.695	-20	PASS
2462	40	2525.5	-43.440	-20	PASS
2462	40	2526.5	-43.742	-20	PASS
2462	40	2527.5	-43.702	-20	PASS
2462	40	2528.5	-43.831	-20	PASS
2462	40	2529.5	-44.058	-20	PASS
2462	40	2530.5	-43.933	-20	PASS
2462	40	2531.5	-43.809	-20	PASS

2462	40	2532.5	-44.284	-20	PASS
2462	40	2533.5	-43.890	-20	PASS
2462	40	2534.5	-44.108	-20	PASS
2462	40	2535.5	-44.104	-20	PASS
2462	40	2536.5	-44.504	-20	PASS
2462	40	2537.5	-44.205	-20	PASS
2462	40	2538.5	-43.200	-20	PASS
2462	40	2539.5	-44.246	-20	PASS
2462	40	2540.5	-44.360	-20	PASS
2462	40	2541.5	-44.226	-20	PASS
2462	40	2542.5	-44.416	-20	PASS
2462	40	2543.5	-44.177	-20	PASS
2462	40	2544.5	-44.450	-20	PASS
2462	40	2545.5	-44.540	-20	PASS
2462	40	2546.5	-44.020	-20	PASS
2462	40	2547.5	-44.318	-20	PASS
2462	40	2548.5	-44.422	-20	PASS
2462	40	2549.5	-44.367	-20	PASS
2462	40	2550.5	-44.395	-20	PASS
2462	40	2551.5	-44.079	-20	PASS
2462	40	2552.5	-44.444	-20	PASS
2462	40	2553.5	-44.542	-20	PASS
2462	40	2554.5	-44.254	-20	PASS
2462	40	2555.5	-44.256	-20	PASS
2462	40	2556.5	-44.385	-20	PASS
2462	40	2557.5	-44.424	-20	PASS
2462	40	2558.5	-44.110	-20	PASS
2462	40	2559.5	-43.923	-20	PASS
2462	40	2560.5	-44.547	-20	PASS
2462	40	2561.5	-43.672	-20	PASS
2462	40	2562.5	-44.151	-20	PASS
2462	40	2563.5	-44.502	-20	PASS

A.8 Transmitter Spurious Emissions

Note: The Frequency band was pre-scanned, the harmonic and other spurious which worst frequency are recorded in the report.

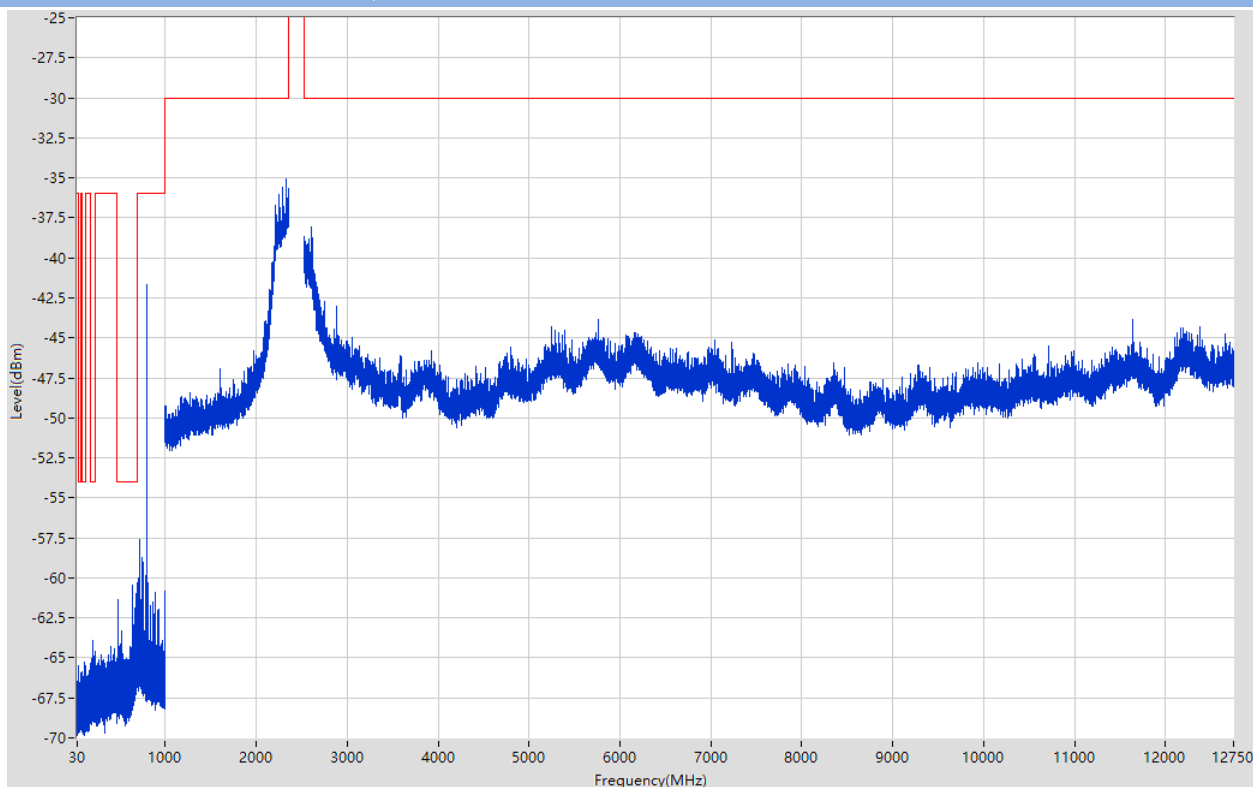
Measuring Parameter

Frequency Range		
30 MHz to 1 000 MHz	RBW (MHz)	100 kHz
	VBW (MHz)	300 kHz
	Sweep points	9970
	Detector mode	Peak
	Trace mode	Max Hold
1 GHz to 12,75 GHz	RBW (MHz)	1 MHz
	VBW (MHz)	3 MHz
	Sweep points	11750
	Detector mode	Peak
	Trace mode	Max Hold

Conducted Test Data

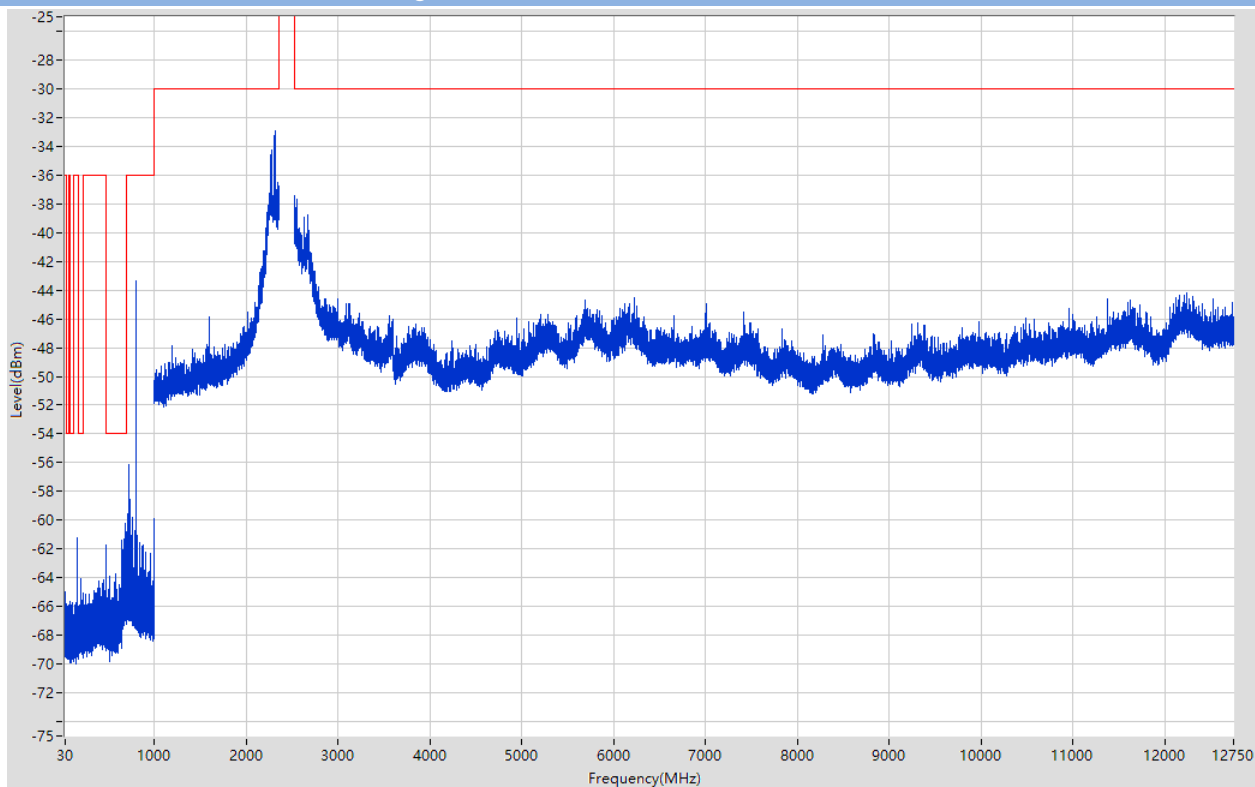
Main Antenna

802.11b 30 MHz to 12.75 GHz, Low channel



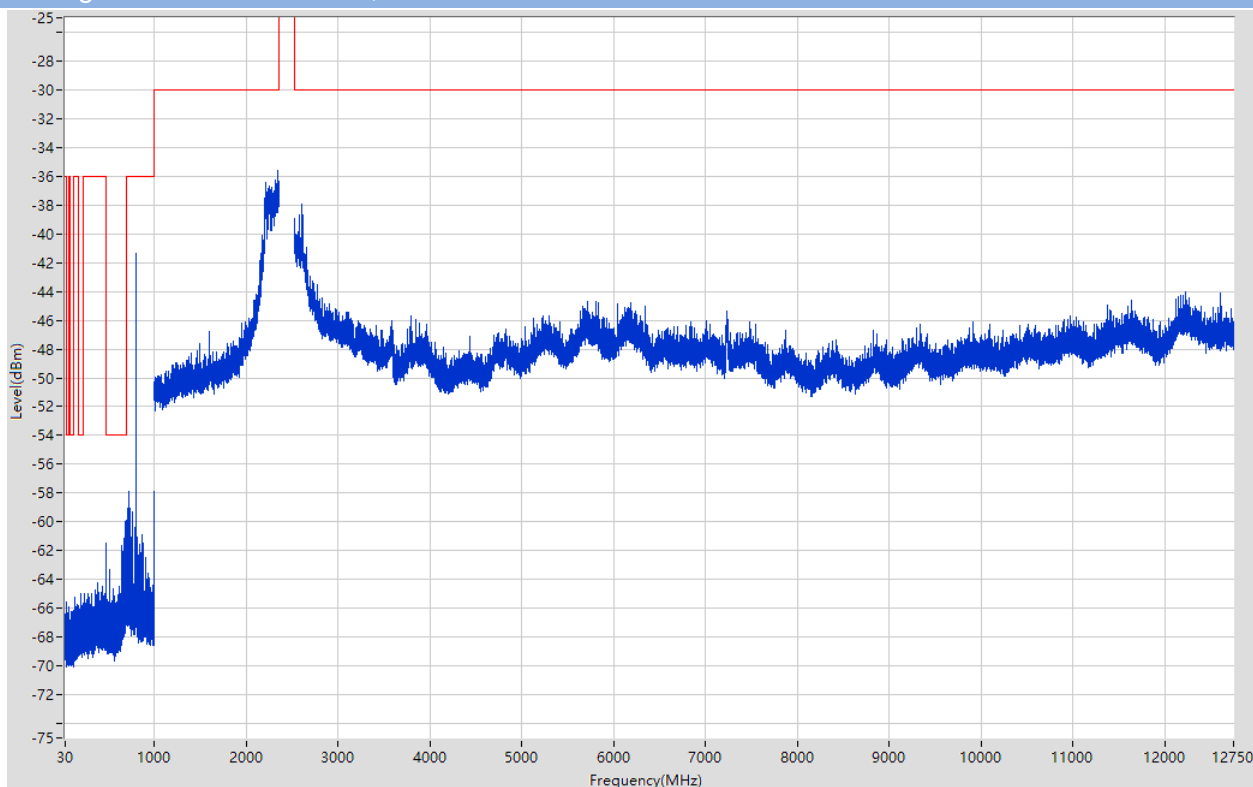
Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	47	0.1	Peak	39.69	-65.46	-36	Pass	401
47	74	0.1	Peak	72.5	-65.95	-54	Pass	541
74	87.5	0.1	Peak	85.914	-65.86	-36	Pass	401
87.5	118	0.1	Peak	110.8	-65.3	-54	Pass	611
118	174	0.1	Peak	172	-65.34	-36	Pass	1121
174	230	0.1	Peak	196.6	-63.93	-54	Pass	1121
230	470	0.1	Peak	400	-64.3	-36	Pass	4801
470	694	0.1	Peak	688.15	-60.32	-54	Pass	4481
694	1000	0.1	Peak	800	-41.64	-36	Pass	6121
1000	2360	1	Peak	2332.275	-35.05	-30	Pass	2797
2523.5	12750	1	Peak	2612.171	-38.08	-30	Pass	20530

802.11b 30 MHz to 12.75 GHz, High channel



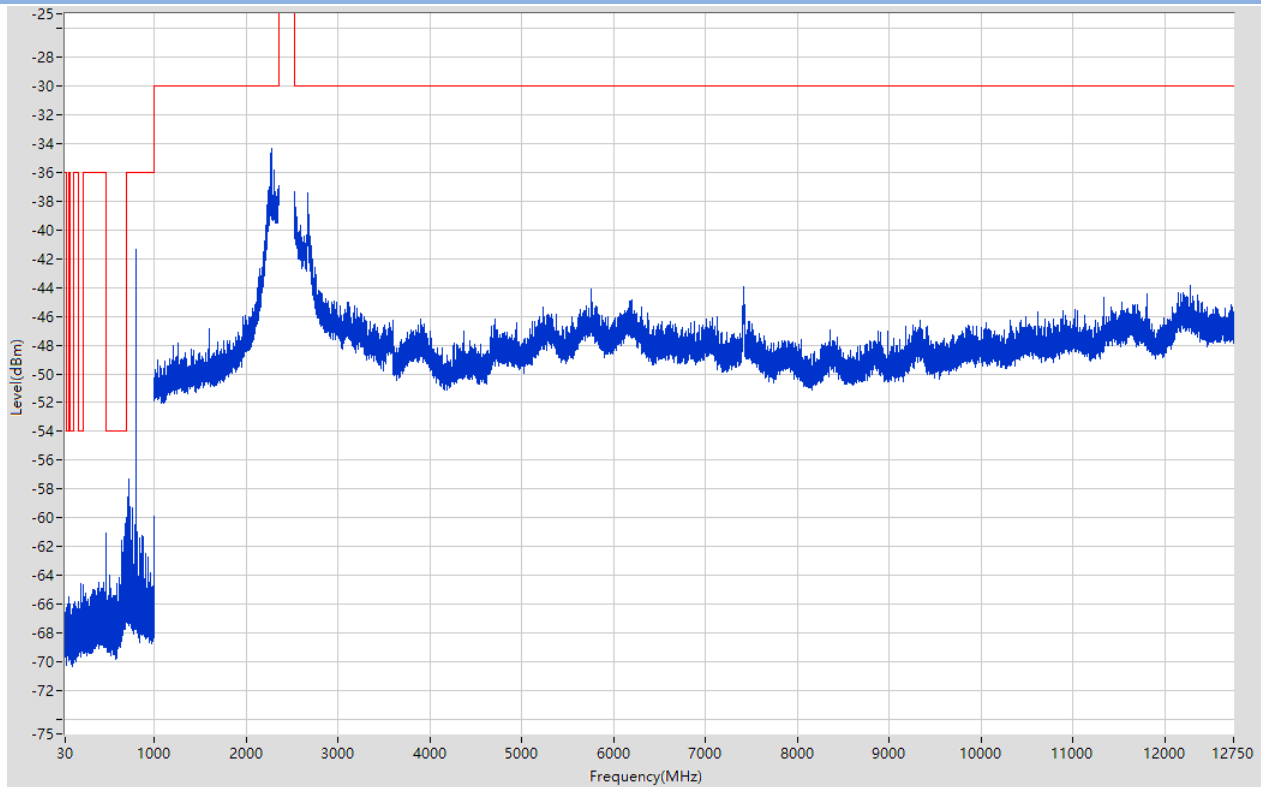
Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	47	0.1	Peak	31.36	-64.95	-36	Pass	401
47	74	0.1	Peak	48.05	-65.78	-54	Pass	541
74	87.5	0.1	Peak	76.7	-65.65	-36	Pass	401
87.5	118	0.1	Peak	103.1	-65.74	-54	Pass	611
118	174	0.1	Peak	160	-61.19	-36	Pass	1121
174	230	0.1	Peak	199.6	-64.07	-54	Pass	1121
230	470	0.1	Peak	453.7	-64.16	-36	Pass	4801
470	694	0.1	Peak	688.15	-60.21	-54	Pass	4481
694	1000	0.1	Peak	800	-43.34	-36	Pass	6121
1000	2360	1	Peak	2313.791	-32.91	-30	Pass	2797
2523.5	12750	1	Peak	2525.493	-37.47	-30	Pass	20530

802.11g 30 MHz to 12.75 GHz, Low channel



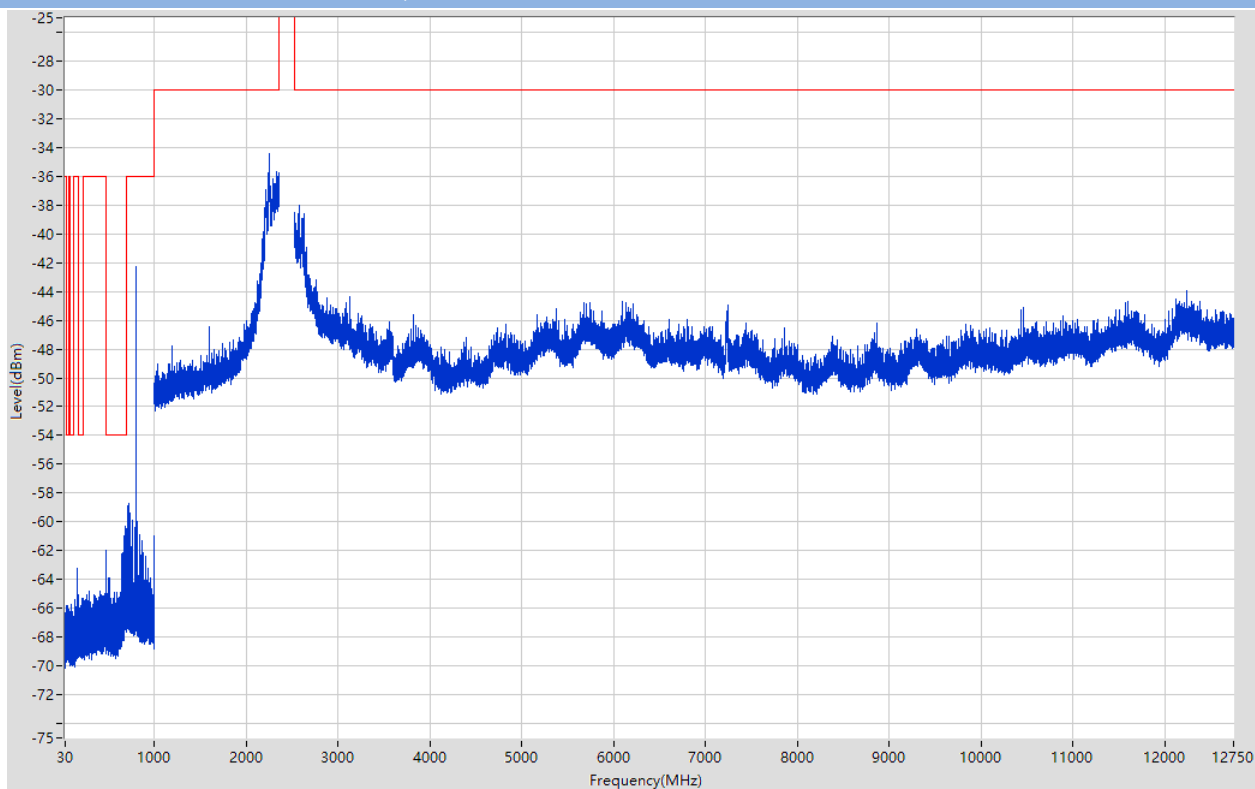
Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	47	0.1	Peak	36.545	-65.53	-36	Pass	401
47	74	0.1	Peak	48.8	-66.16	-54	Pass	541
74	87.5	0.1	Peak	75.688	-65.86	-36	Pass	401
87.5	118	0.1	Peak	99.8	-66.19	-54	Pass	611
118	174	0.1	Peak	137.9	-65.27	-36	Pass	1121
174	230	0.1	Peak	200.05	-64.95	-54	Pass	1121
230	470	0.1	Peak	384.2	-64.26	-36	Pass	4801
470	694	0.1	Peak	688.15	-59.98	-54	Pass	4481
694	1000	0.1	Peak	800	-41.39	-36	Pass	6121
1000	2360	1	Peak	2339.084	-35.57	-30	Pass	2797
2523.5	12750	1	Peak	2610.676	-37.91	-30	Pass	20530

802.11g 30 MHz to 12.75 GHz, High channel



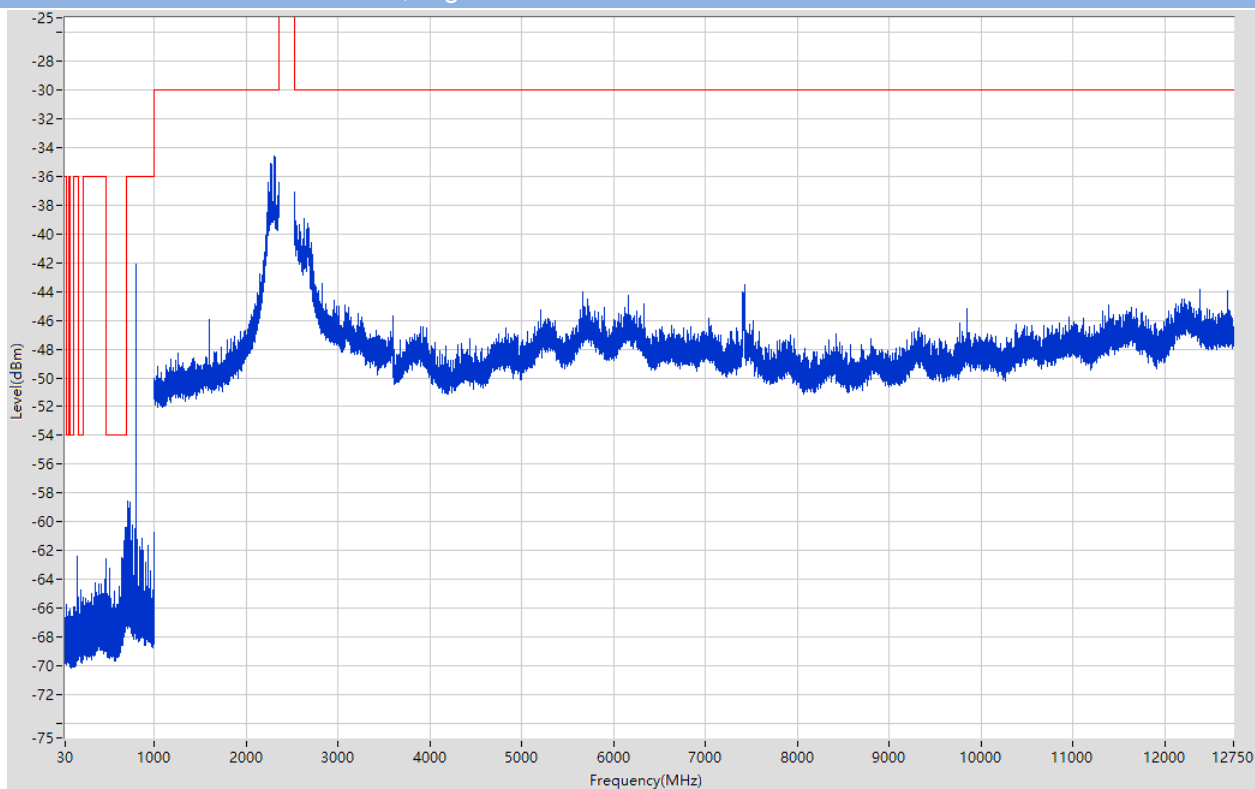
Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	47	0.1	Peak	46.873	-66.25	-36	Pass	401
47	74	0.1	Peak	65.95	-65.51	-54	Pass	541
74	87.5	0.1	Peak	78.793	-66	-36	Pass	401
87.5	118	0.1	Peak	106.45	-66.3	-54	Pass	611
118	174	0.1	Peak	130.75	-65.79	-36	Pass	1121
174	230	0.1	Peak	200	-64.59	-54	Pass	1121
230	470	0.1	Peak	393.2	-64.5	-36	Pass	4801
470	694	0.1	Peak	688.15	-60.39	-54	Pass	4481
694	1000	0.1	Peak	800	-41.4	-36	Pass	6121
1000	2360	1	Peak	2272.933	-34.36	-30	Pass	2797
2523.5	12750	1	Peak	2526.489	-37.38	-30	Pass	20530

802.11n20 30 MHz to 12.75 GHz, Low channel



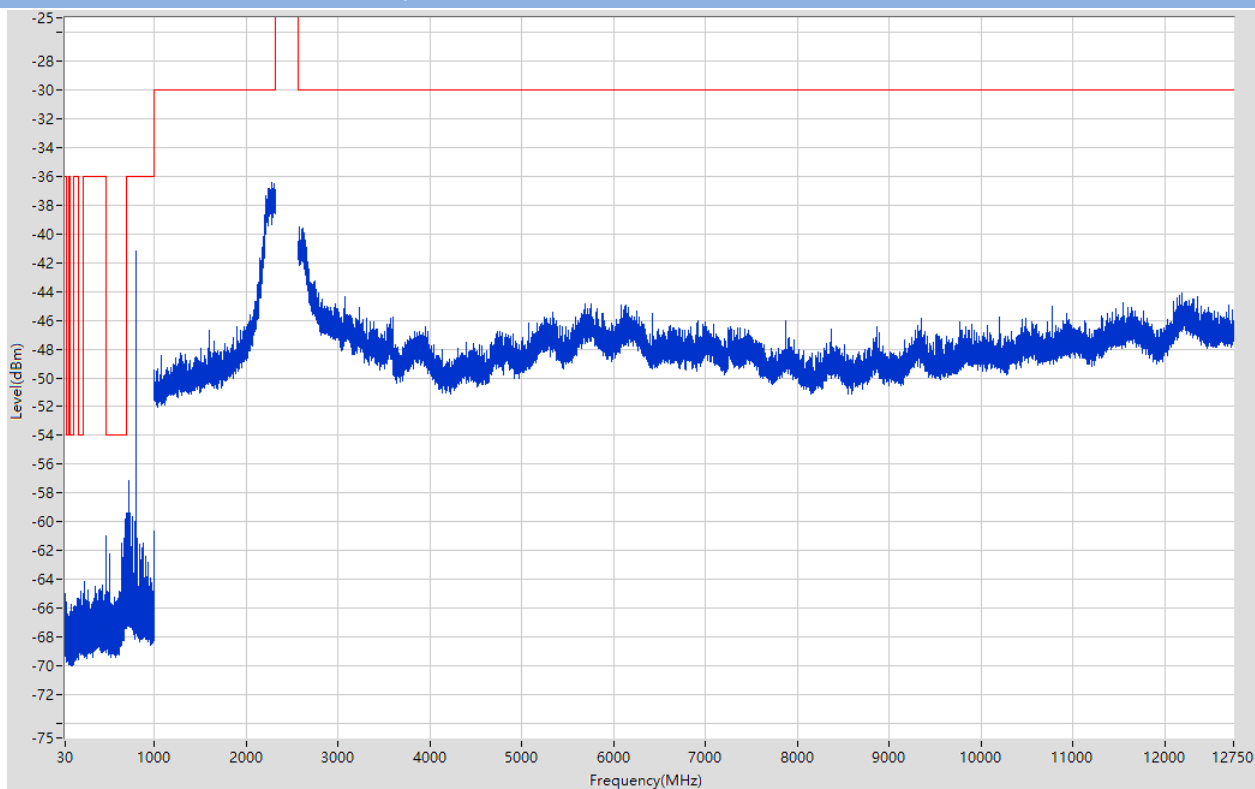
Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	47	0.1	Peak	44.025	-65.78	-36	Pass	401
47	74	0.1	Peak	54.2	-65.82	-54	Pass	541
74	87.5	0.1	Peak	76.093	-66.21	-36	Pass	401
87.5	118	0.1	Peak	98.45	-65.77	-54	Pass	611
118	174	0.1	Peak	160.05	-63.21	-36	Pass	1121
174	230	0.1	Peak	208.9	-65.32	-54	Pass	1121
230	470	0.1	Peak	294.85	-64.79	-36	Pass	4801
470	694	0.1	Peak	688.1	-60.34	-54	Pass	4481
694	1000	0.1	Peak	800	-42.24	-36	Pass	6121
1000	2360	1	Peak	2252.504	-34.41	-30	Pass	2797
2523.5	12750	1	Peak	2572.817	-38	-30	Pass	20530

802.11n20 30 MHz to 12.75 GHz, High channel



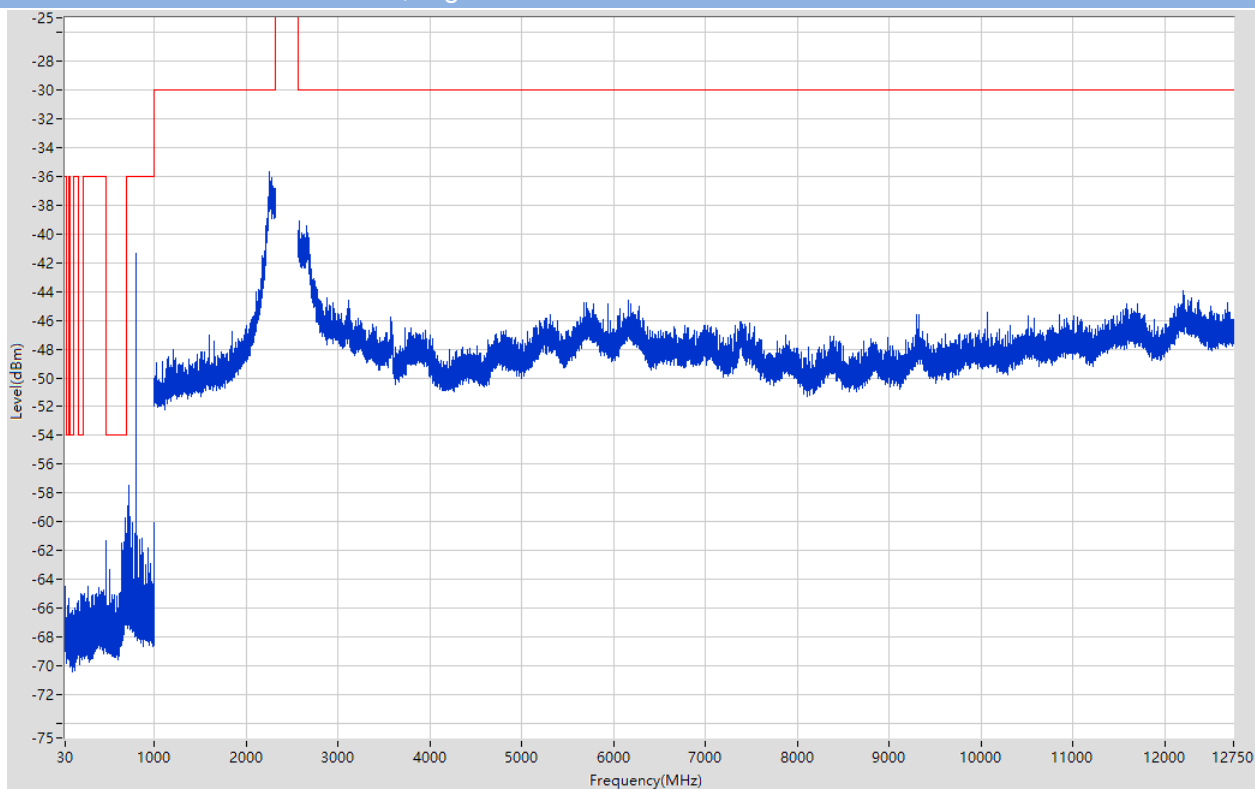
Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	47	0.1	Peak	40.455	-65.7	-36	Pass	401
47	74	0.1	Peak	54.3	-66.53	-54	Pass	541
74	87.5	0.1	Peak	81.695	-66.04	-36	Pass	401
87.5	118	0.1	Peak	111.15	-66.59	-54	Pass	611
118	174	0.1	Peak	160	-62.39	-36	Pass	1121
174	230	0.1	Peak	200	-64.73	-54	Pass	1121
230	470	0.1	Peak	461.05	-64	-36	Pass	4801
470	694	0.1	Peak	688.15	-60.43	-54	Pass	4481
694	1000	0.1	Peak	800	-42.15	-36	Pass	6121
1000	2360	1	Peak	2304.549	-34.63	-30	Pass	2797
2523.5	12750	1	Peak	2525.991	-37.11	-30	Pass	20530

802.11n40 30 MHz to 12.75 GHz, Low channel



Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	47	0.1	Peak	30.34	-65.01	-36	Pass	401
47	74	0.1	Peak	47.5	-65.56	-54	Pass	541
74	87.5	0.1	Peak	77.308	-66.24	-36	Pass	401
87.5	118	0.1	Peak	90.65	-65.7	-54	Pass	611
118	174	0.1	Peak	172.95	-65.28	-36	Pass	1121
174	230	0.1	Peak	200	-64.79	-54	Pass	1121
230	470	0.1	Peak	233.45	-64.16	-36	Pass	4801
470	694	0.1	Peak	688.1	-59.84	-54	Pass	4481
694	1000	0.1	Peak	800	-41.22	-36	Pass	6121
1000	2320	1	Peak	2284.592	-36.4	-30	Pass	2797
2563.5	12750	1	Peak	2581.859	-39.55	-30	Pass	20530

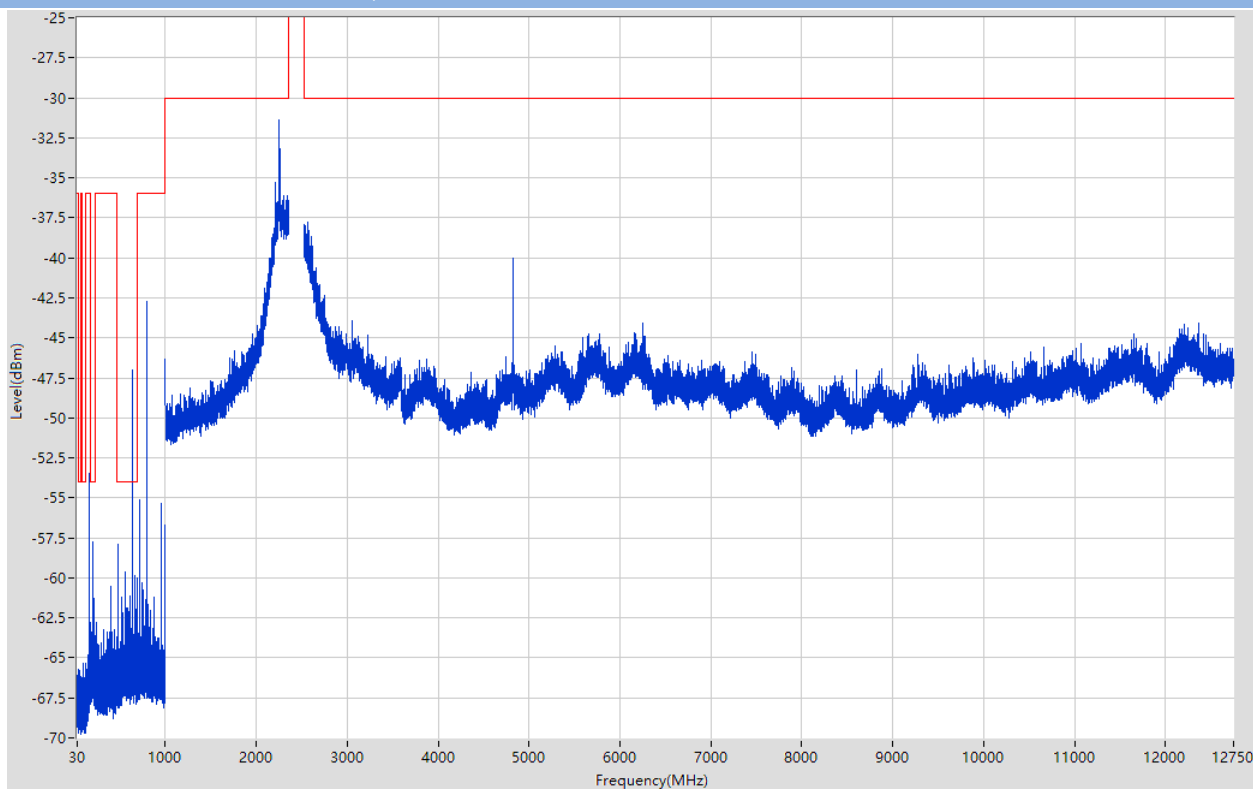
802.11n40 30 MHz to 12.75 GHz, High channel



Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	47	0.1	Peak	34.038	-64.51	-36	Pass	401
47	74	0.1	Peak	69.25	-65.31	-54	Pass	541
74	87.5	0.1	Peak	82.269	-66.42	-36	Pass	401
87.5	118	0.1	Peak	103.65	-66.17	-54	Pass	611
118	174	0.1	Peak	160	-65.62	-36	Pass	1121
174	230	0.1	Peak	200.05	-64.96	-54	Pass	1121
230	470	0.1	Peak	282.65	-64.46	-36	Pass	4801
470	694	0.1	Peak	688.15	-59.7	-54	Pass	4481
694	1000	0.1	Peak	800	-41.34	-36	Pass	6121
1000	2320	1	Peak	2254.378	-35.72	-30	Pass	2797
2563.5	12750	1	Peak	2583.844	-39.11	-30	Pass	20530

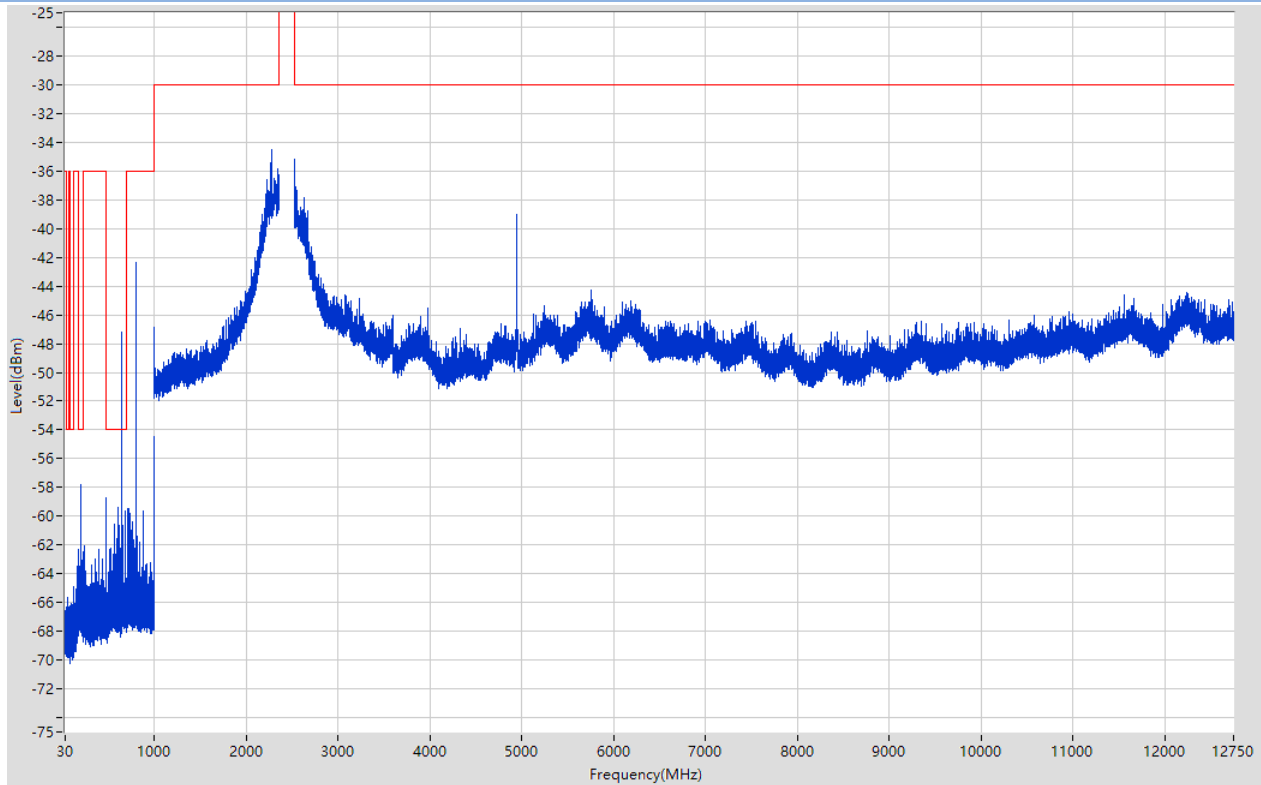
Aux. Antenna

802.11b 30 MHz to 12.75 GHz, Low channel



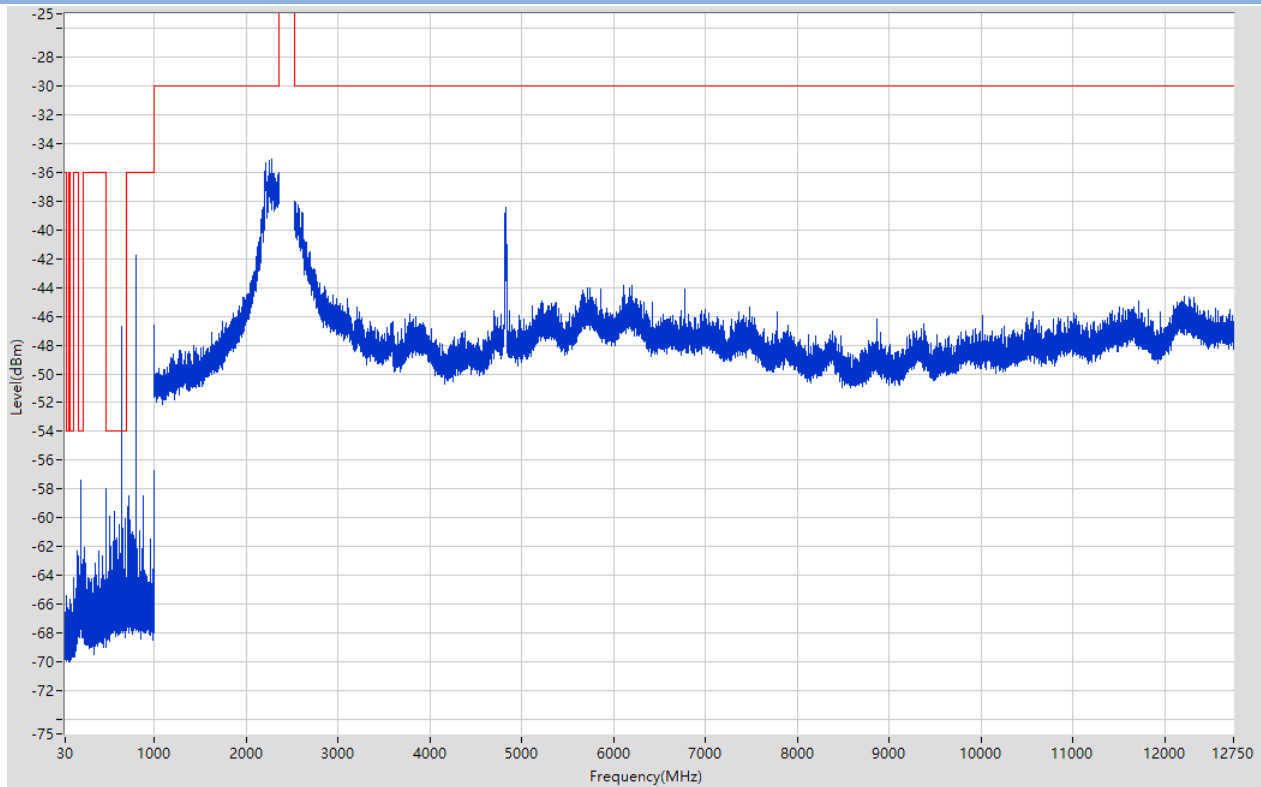
Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	47	0.1	Peak	41.645	-65.69	-36	Pass	401
47	74	0.1	Peak	57.9	-65.77	-54	Pass	541
74	87.5	0.1	Peak	83.585	-66.27	-36	Pass	401
87.5	118	0.1	Peak	93.65	-65.33	-54	Pass	611
118	174	0.1	Peak	160	-53.45	-36	Pass	1121
174	230	0.1	Peak	200	-57.75	-54	Pass	1121
230	470	0.1	Peak	400	-60.56	-36	Pass	4801
470	694	0.1	Peak	640	-47.04	-54	N/A	4481
			RMS		-57.998	-54	Pass	30000
694	1000	0.1	Peak	800	-42.69	-36	Pass	6121
1000	2360	1	Peak	2252.99	-31.36	-30	N/A	2797
			RMS		-45.766	-30	Pass	30000
2523.5	12750	1	Peak	2567.835	-37.76	-30	Pass	20530

802.11b 30 MHz to 12.75 GHz, High channel



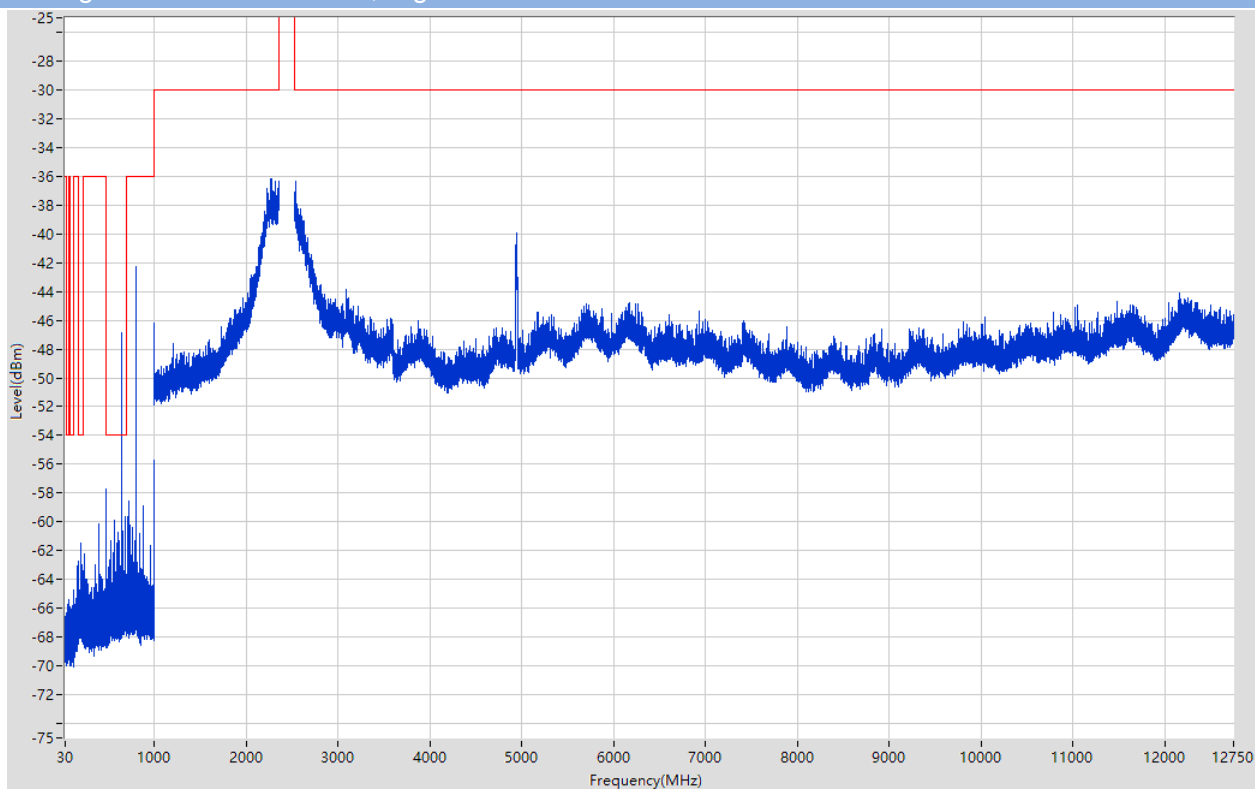
Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	47	0.1	Peak	41.135	-66.3	-36	Pass	401
47	74	0.1	Peak	56.95	-65.69	-54	Pass	541
74	87.5	0.1	Peak	81.864	-66.23	-36	Pass	401
87.5	118	0.1	Peak	95.25	-66.08	-54	Pass	611
118	174	0.1	Peak	172.05	-62.35	-36	Pass	1121
174	230	0.1	Peak	200	-57.81	-54	Pass	1121
230	470	0.1	Peak	240	-62.04	-36	Pass	4801
470	694	0.1	Peak	640	-47.24	-54	N/A	4481
			RMS		-57.877	-54	Pass	30000
694	1000	0.1	Peak	800	-42.4	-36	Pass	6121
1000	2360	1	Peak	2273.419	-34.5	-30	Pass	2797
2523.5	12750	1	Peak	2523.5	-35.22	-30	Pass	20530

802.11g 30 MHz to 12.75 GHz, Low channel



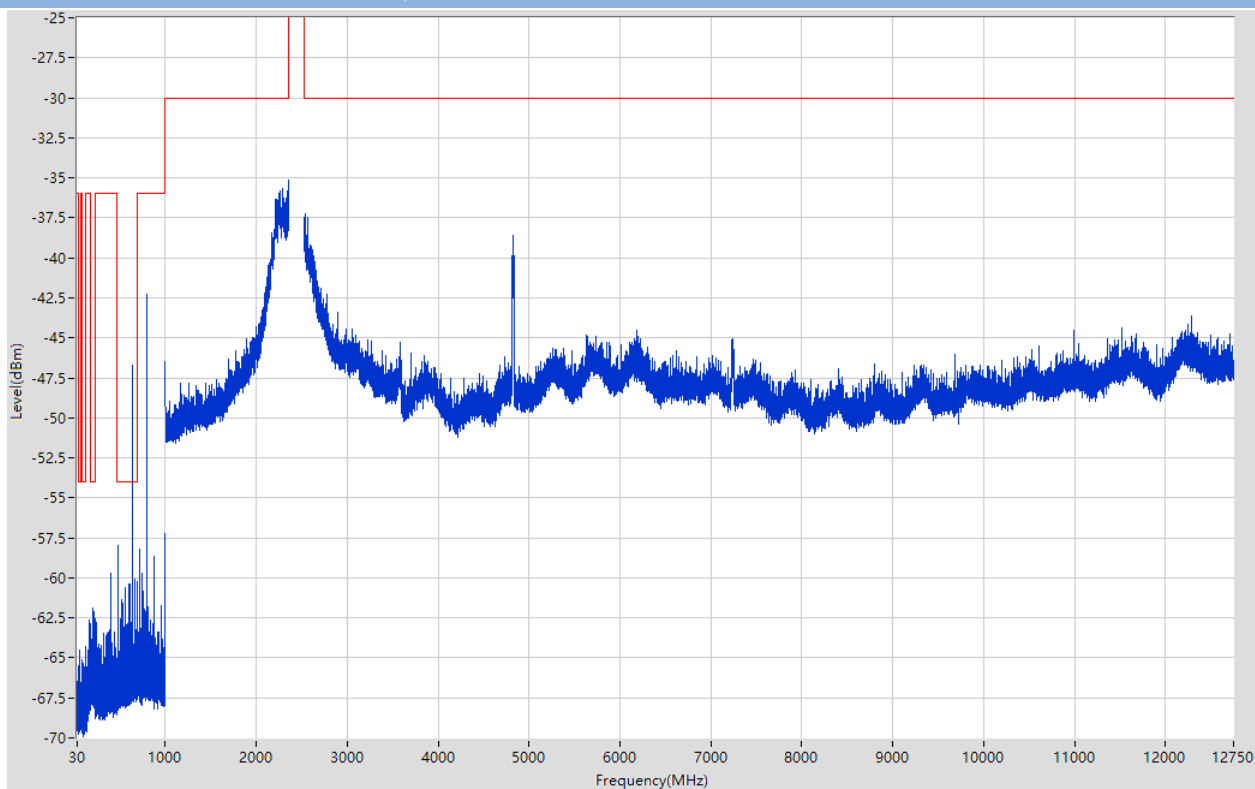
Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	47	0.1	Peak	46.533	-65.44	-36	Pass	401
47	74	0.1	Peak	52.25	-66.22	-54	Pass	541
74	87.5	0.1	Peak	80.041	-65.67	-36	Pass	401
87.5	118	0.1	Peak	94.7	-65.96	-54	Pass	611
118	174	0.1	Peak	160	-62.31	-36	Pass	1121
174	230	0.1	Peak	200	-57.38	-54	Pass	1121
230	470	0.1	Peak	233.4	-62.1	-36	Pass	4801
470	694	0.1	Peak	640	-46.68	-54	N/A	4481
			RMS		-57.025	-54	Pass	30000
694	1000	0.1	Peak	800	-41.75	-36	Pass	6121
1000	2360	1	Peak	2284.12	-35.11	-30	Pass	2797
2523.5	12750	1	Peak	2531.47	-37.99	-30	Pass	20530

802.11g 30 MHz to 12.75 GHz, High channel



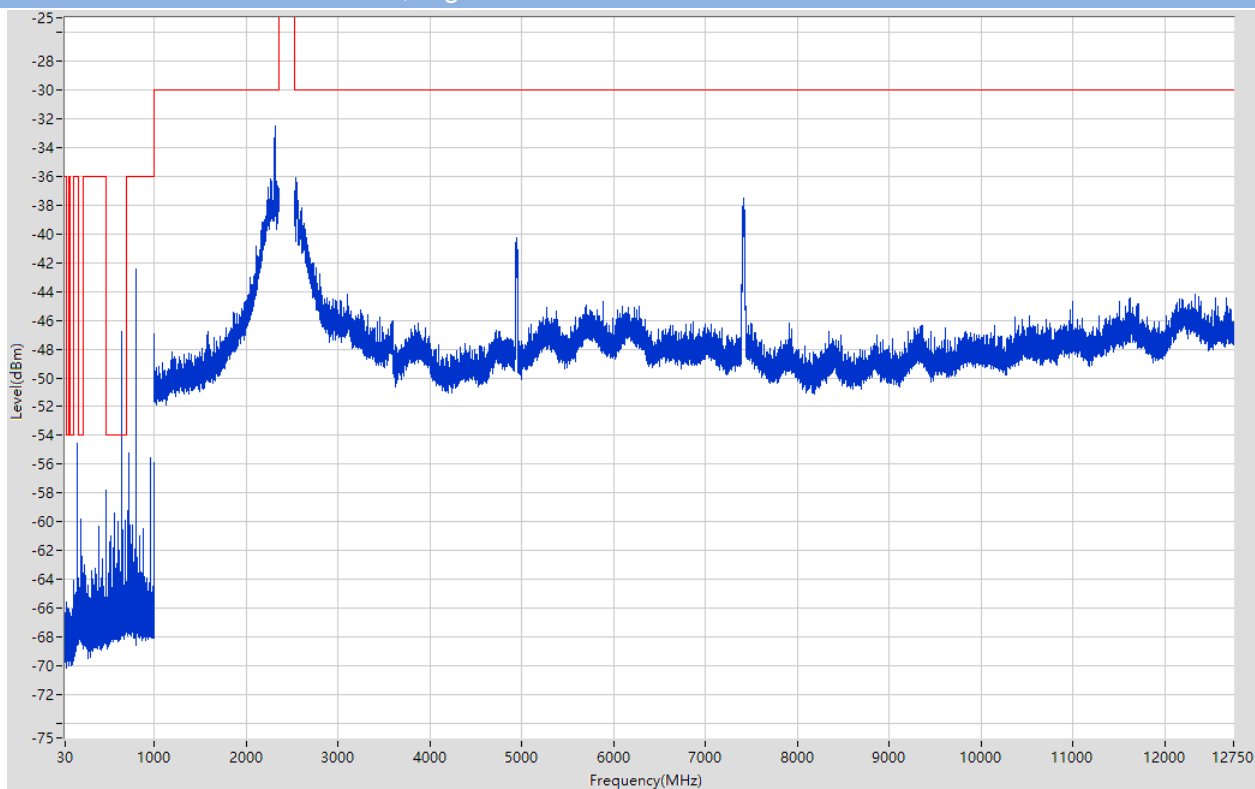
Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	47	0.1	Peak	38.458	-66.33	-36	Pass	401
47	74	0.1	Peak	64.4	-65.39	-54	Pass	541
74	87.5	0.1	Peak	83.113	-65.88	-36	Pass	401
87.5	118	0.1	Peak	111.75	-65.86	-54	Pass	611
118	174	0.1	Peak	172	-62.73	-36	Pass	1121
174	230	0.1	Peak	196.6	-61.47	-54	Pass	1121
230	470	0.1	Peak	400	-60.14	-36	Pass	4801
470	694	0.1	Peak	640	-46.85	-54	N/A	4481
			RMS		-57.32	-54	Pass	30000
694	1000	0.1	Peak	800	-42.3	-36	Pass	6121
1000	2360	1	Peak	2266.123	-36.16	-30	Pass	2797
2523.5	12750	1	Peak	2543.924	-36.37	-30	Pass	20530

802.11n20 30 MHz to 12.75 GHz, Low channel



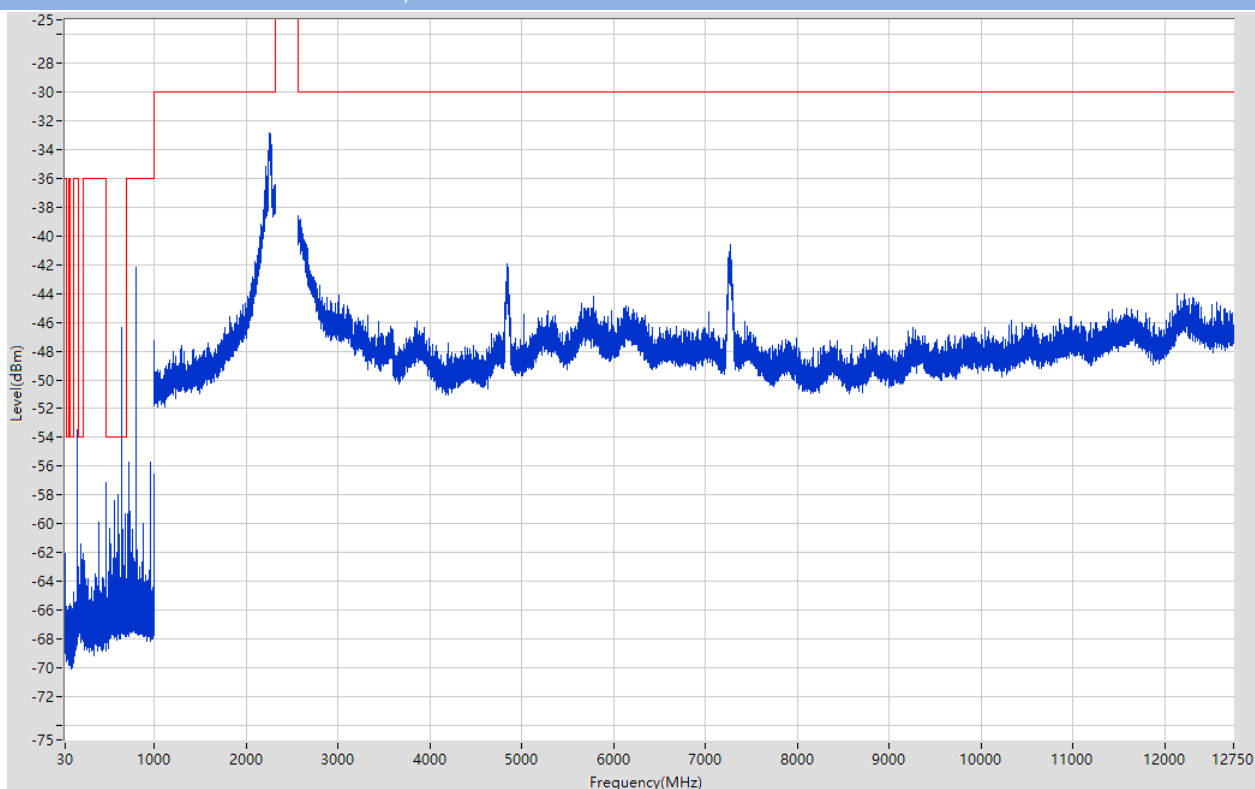
Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	47	0.1	Peak	41.815	-65.47	-36	Pass	401
47	74	0.1	Peak	57	-64.49	-54	Pass	541
74	87.5	0.1	Peak	86.96	-65.12	-36	Pass	401
87.5	118	0.1	Peak	98.15	-65.37	-54	Pass	611
118	174	0.1	Peak	160	-62.6	-36	Pass	1121
174	230	0.1	Peak	196.6	-61.91	-54	Pass	1121
230	470	0.1	Peak	400	-59.71	-36	Pass	4801
470	694	0.1	Peak	640	-46.69	-54	N/A	4481
			RMS		-57.82	-54	Pass	30000
694	1000	0.1	Peak	800	-42.31	-36	Pass	6121
1000	2360	1	Peak	2357.568	-35.15	-30	Pass	2797
2523.5	12750	1	Peak	2539.441	-37.27	-30	Pass	20530

802.11n20 30 MHz to 12.75 GHz, High channel



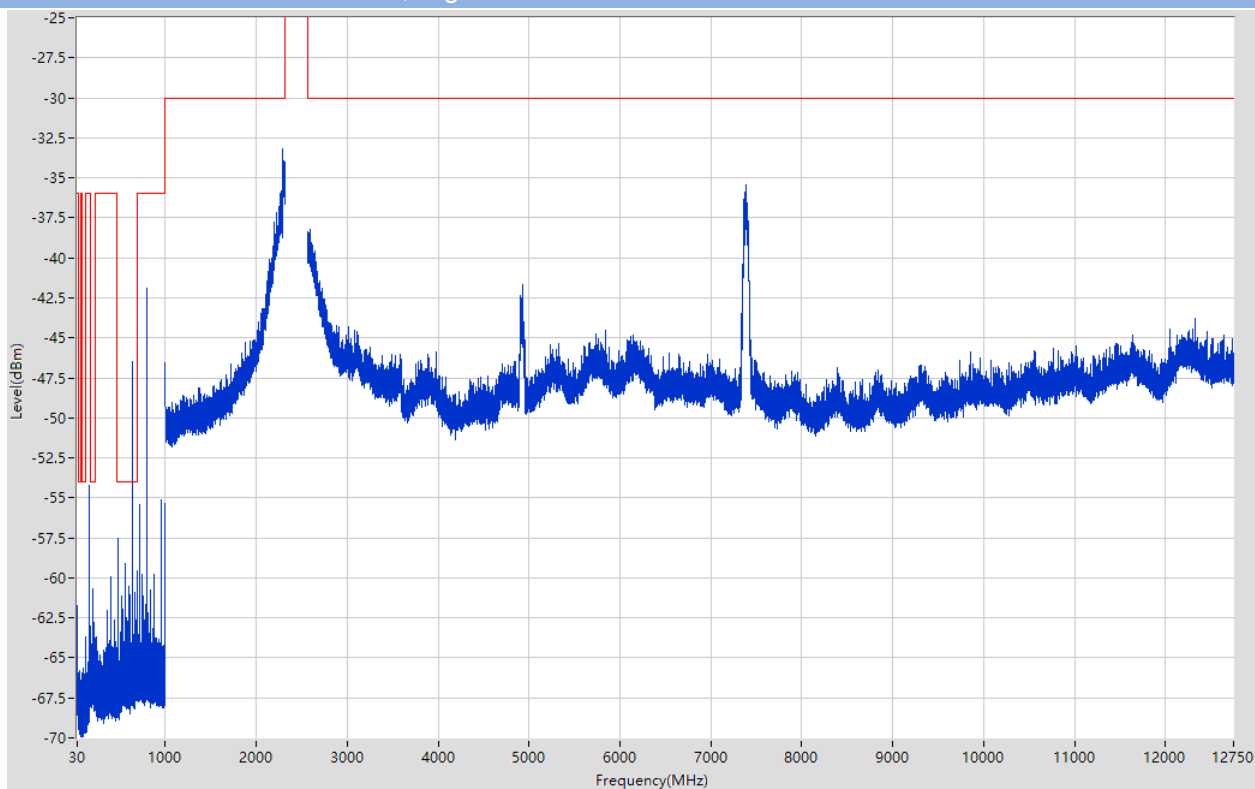
Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	47	0.1	Peak	44.535	-65.56	-36	Pass	401
47	74	0.1	Peak	62.05	-65.97	-54	Pass	541
74	87.5	0.1	Peak	74.068	-66.05	-36	Pass	401
87.5	118	0.1	Peak	113.35	-66.03	-54	Pass	611
118	174	0.1	Peak	160	-54.53	-36	Pass	1121
174	230	0.1	Peak	200.05	-59.79	-54	Pass	1121
230	470	0.1	Peak	400	-60.34	-36	Pass	4801
470	694	0.1	Peak	640	-46.78	-54	N/A	4481
			RMS		-58.26	-54	Pass	30000
694	1000	0.1	Peak	800	-42.41	-36	Pass	6121
1000	2360	1	Peak	2318.655	-32.52	-30	N/A	2797
			RMS		-53.197	-30	Pass	30000
2523.5	12750	1	Peak	2545.419	-36.1	-30	Pass	20530

802.11n40 30 MHz to 12.75 GHz, Low channel



Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	47	0.1	Peak	30	-62.1	-36	Pass	401
47	74	0.1	Peak	68.15	-65.73	-54	Pass	541
74	87.5	0.1	Peak	83.686	-65.6	-36	Pass	401
87.5	118	0.1	Peak	92.3	-65.71	-54	Pass	611
118	174	0.1	Peak	160	-53.44	-36	Pass	1121
174	230	0.1	Peak	200	-61.42	-54	Pass	1121
230	470	0.1	Peak	400	-59.89	-36	Pass	4801
470	694	0.1	Peak	640	-46.38	-54	N/A	4481
			RMS		-58.12	-54	Pass	30000
694	1000	0.1	Peak	800	-42.23	-36	Pass	6121
1000	2320	1	Peak	2253.906	-32.81	-30	N/A	2797
			RMS		-49.965	-30	Pass	30000
2563.5	12750	1	Peak	2567.47	-38.61	-30	Pass	20530

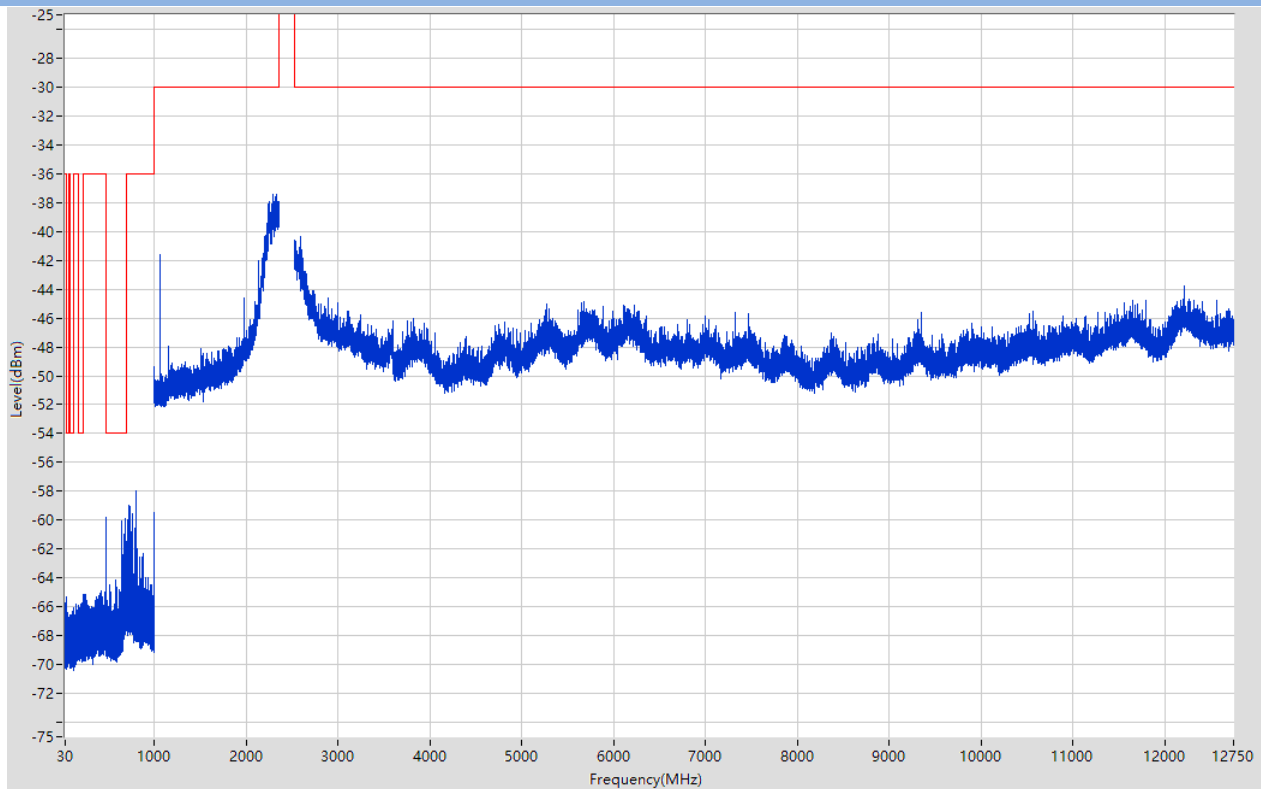
802.11n40 30 MHz to 12.75 GHz, High channel



Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	47	0.1	Peak	30	-61.77	-36	Pass	401
47	74	0.1	Peak	59.35	-65.81	-54	Pass	541
74	87.5	0.1	Peak	80.008	-65.91	-36	Pass	401
87.5	118	0.1	Peak	89.9	-65.66	-54	Pass	611
118	174	0.1	Peak	160	-54.22	-36	Pass	1121
174	230	0.1	Peak	200	-60.67	-54	Pass	1121
230	470	0.1	Peak	400	-59.92	-36	Pass	4801
470	694	0.1	Peak	640	-46.49	-54	N/A	4481
			RMS		-58.25	-54	Pass	30000
694	1000	0.1	Peak	800	-41.91	-36	Pass	6121
1000	2320	1	Peak	2293.562	-33.17	-30	Pass	2797
2563.5	12750	1	Peak	7383.592	-35.45	-30	Pass	20530

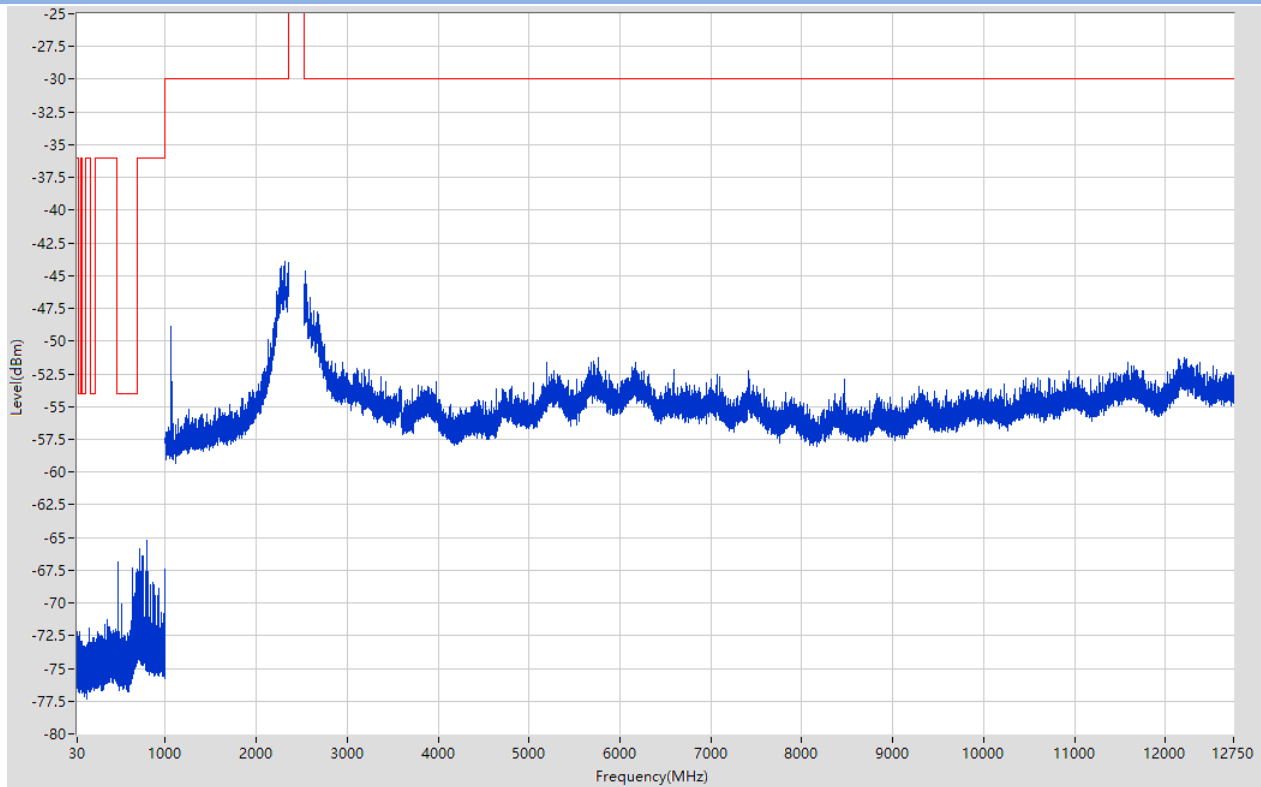
MIMO-Main Antenna

802.11n20 30 MHz to 12.75 GHz, Low channel



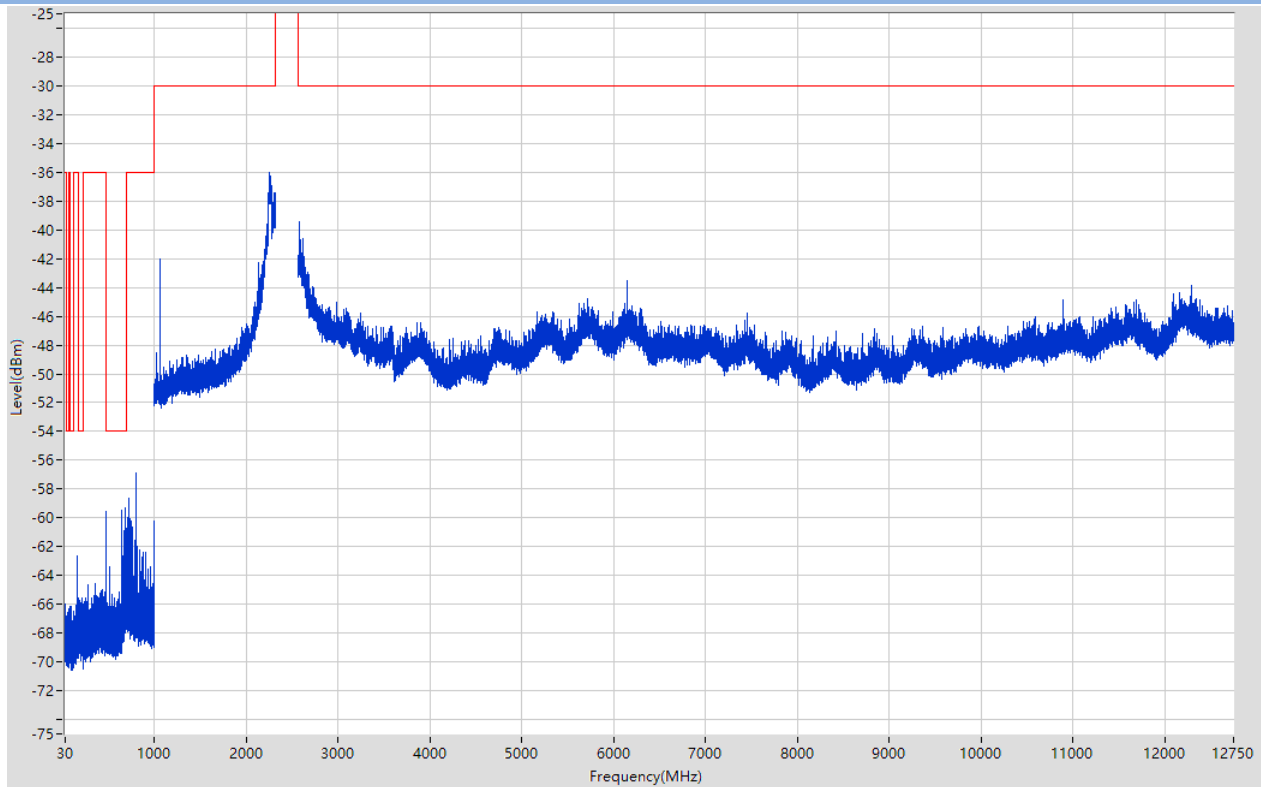
Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	47	0.1	Peak	42.75	-65.31	-36	Pass	401
47	74	0.1	Peak	51.65	-66.42	-54	Pass	541
74	87.5	0.1	Peak	76.936	-66.61	-36	Pass	401
87.5	118	0.1	Peak	114.55	-66.31	-54	Pass	611
118	174	0.1	Peak	154.05	-65.79	-36	Pass	1121
174	230	0.1	Peak	225.9	-65.15	-54	Pass	1121
230	470	0.1	Peak	420.2	-64.93	-36	Pass	4801
470	694	0.1	Peak	480	-59.82	-54	Pass	4481
694	1000	0.1	Peak	800	-57.93	-36	Pass	6121
1000	2360	1	Peak	2332.275	-37.41	-30	Pass	2797
2523.5	12750	1	Peak	2589.256	-40.37	-30	Pass	20530

802.11n20 30 MHz to 12.75 GHz, High channel



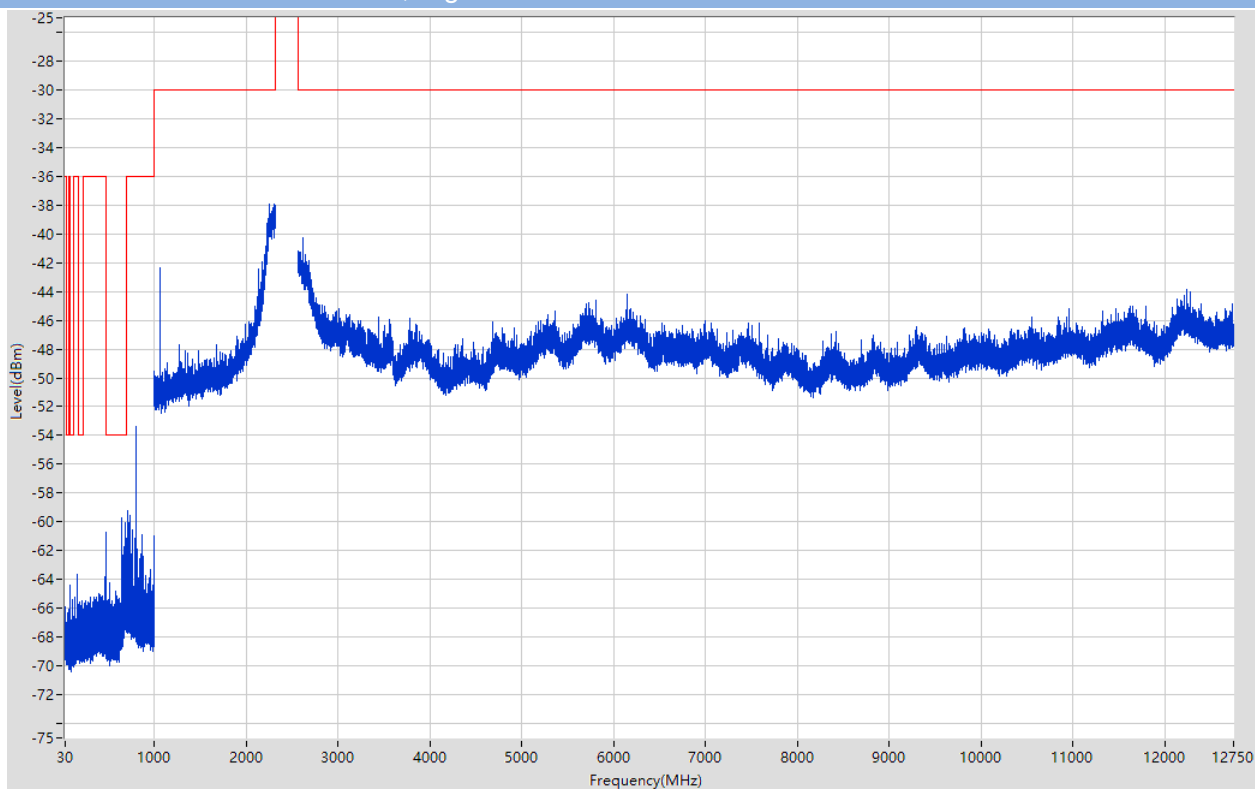
Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	47	0.1	Peak	32.933	-72.17	-36	Pass	401
47	74	0.1	Peak	58.15	-72.18	-54	Pass	541
74	87.5	0.1	Peak	76.633	-72.91	-36	Pass	401
87.5	118	0.1	Peak	89.05	-73.15	-54	Pass	611
118	174	0.1	Peak	160	-71.96	-36	Pass	1121
174	230	0.1	Peak	214.15	-72.64	-54	Pass	1121
230	470	0.1	Peak	360.05	-71.24	-36	Pass	4801
470	694	0.1	Peak	480	-66.88	-54	Pass	4481
694	1000	0.1	Peak	800	-65.21	-36	Pass	6121
1000	2360	1	Peak	2310.873	-43.91	-30	Pass	2797
2523.5	12750	1	Peak	2544.422	-44.66	-30	Pass	20530

802.11n40 30 MHz to 12.75 GHz, Low channel



Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	47	0.1	Peak	30.298	-65.97	-36	Pass	401
47	74	0.1	Peak	70.55	-66.29	-54	Pass	541
74	87.5	0.1	Peak	76.599	-66.18	-36	Pass	401
87.5	118	0.1	Peak	95.75	-66.15	-54	Pass	611
118	174	0.1	Peak	160	-62.67	-36	Pass	1121
174	230	0.1	Peak	174.05	-65.56	-54	Pass	1121
230	470	0.1	Peak	360.05	-64.56	-36	Pass	4801
470	694	0.1	Peak	688.15	-59.3	-54	Pass	4481
694	1000	0.1	Peak	800	-56.88	-36	Pass	6121
1000	2320	1	Peak	2248.24	-36.04	-30	Pass	2797
2563.5	12750	1	Peak	2582.356	-39.42	-30	Pass	20530

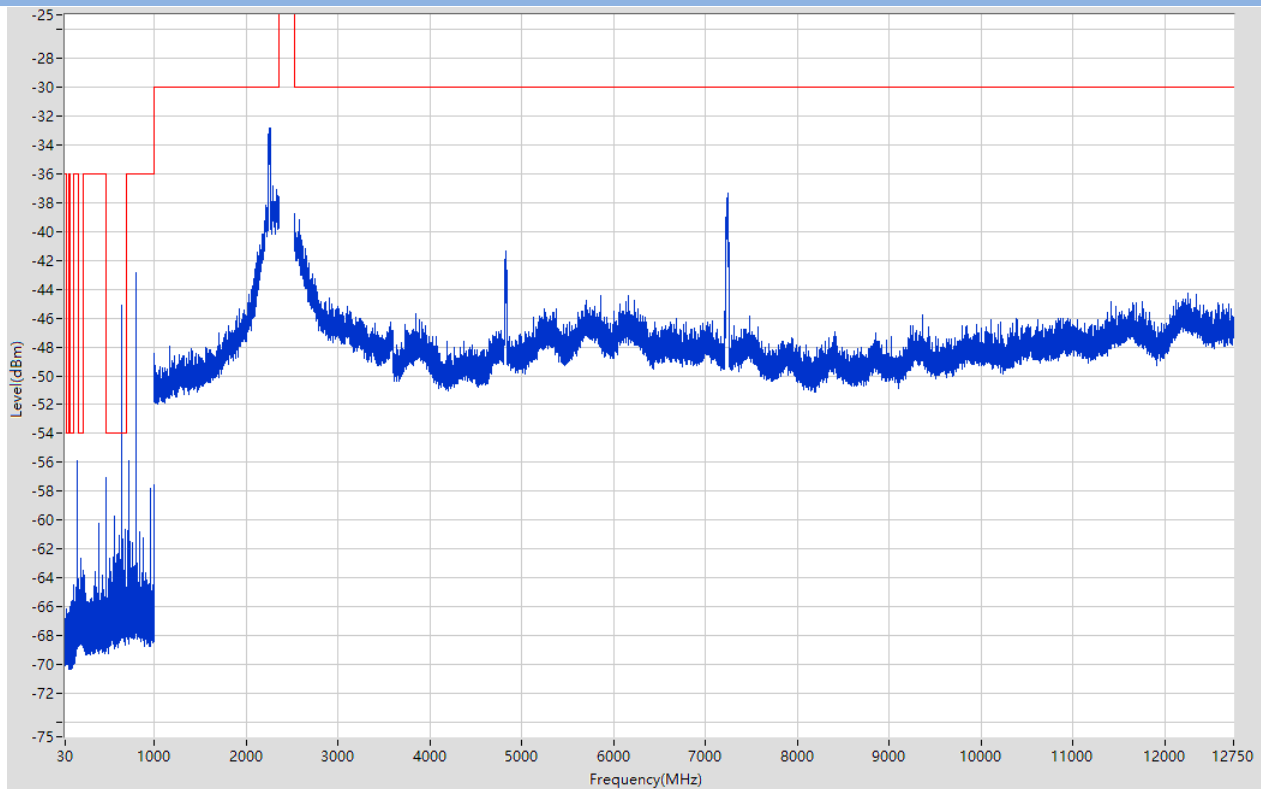
802.11n40 30 MHz to 12.75 GHz, High channel



Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	47	0.1	Peak	33.103	-65.89	-36	Pass	401
47	74	0.1	Peak	53.1	-66.31	-54	Pass	541
74	87.5	0.1	Peak	85.914	-64.39	-36	Pass	401
87.5	118	0.1	Peak	109.25	-65.42	-54	Pass	611
118	174	0.1	Peak	160	-63.63	-36	Pass	1121
174	230	0.1	Peak	212.25	-65.5	-54	Pass	1121
230	470	0.1	Peak	456.15	-63.83	-36	Pass	4801
470	694	0.1	Peak	640	-59.7	-54	Pass	4481
694	1000	0.1	Peak	800	-53.38	-36	Pass	6121
1000	2320	1	Peak	2308.67	-37.91	-30	Pass	2797
2563.5	12750	1	Peak	2622.052	-40.26	-30	Pass	20530

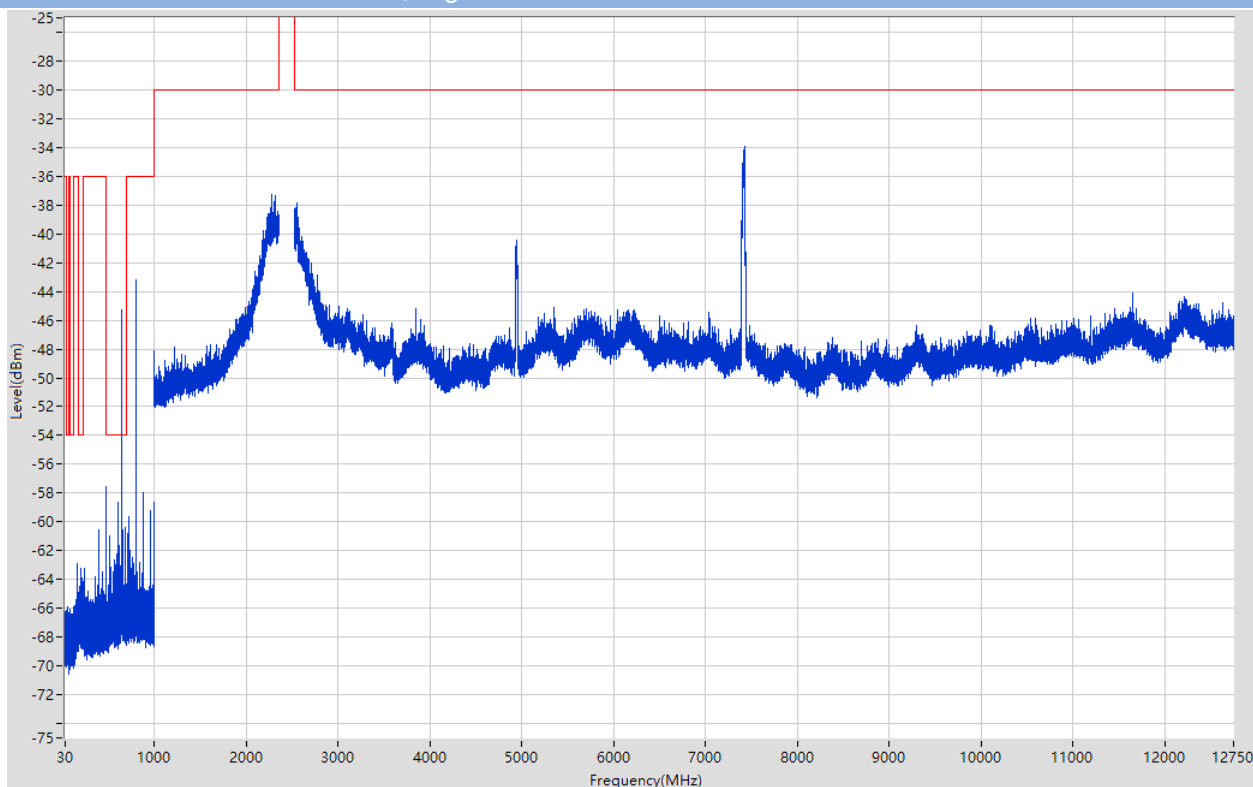
MIMO-Aux. Antenna

802.11n20 30 MHz to 12.75 GHz, Low channel



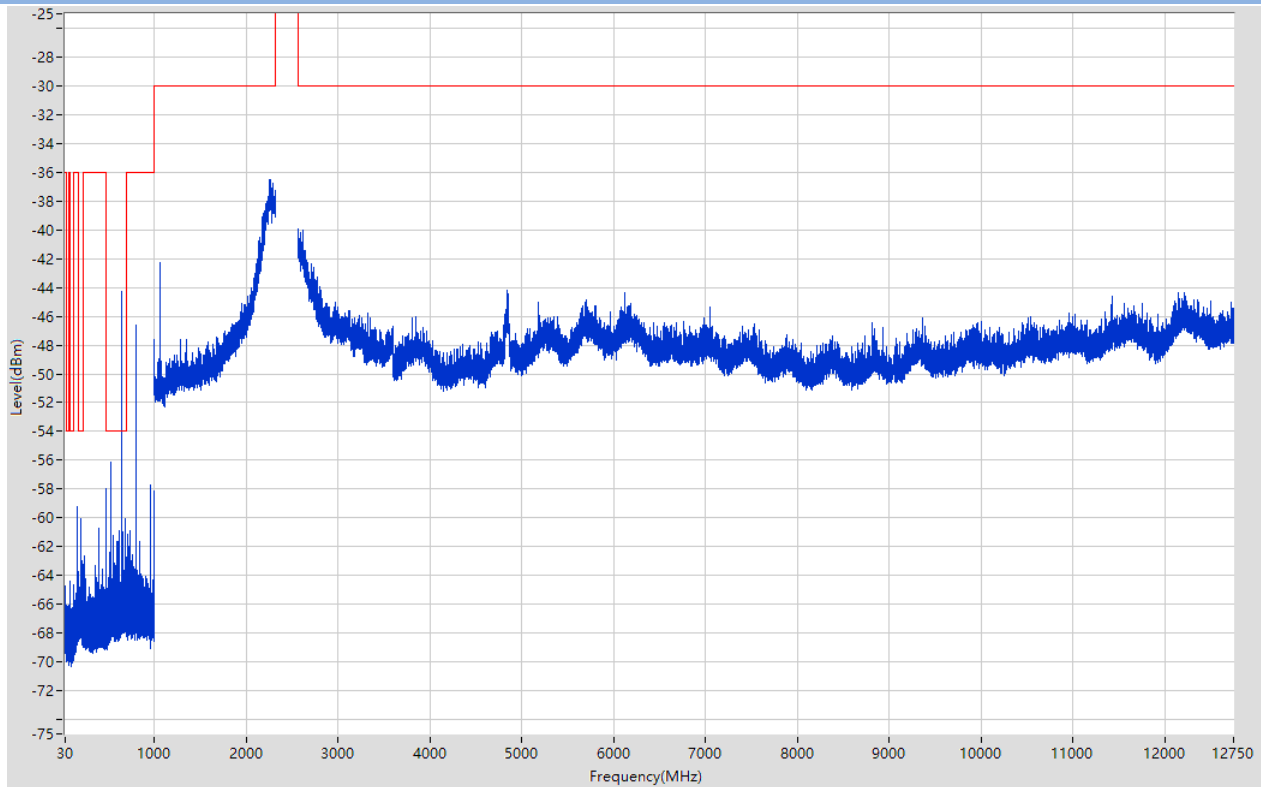
Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	47	0.1	Peak	37.778	-66.14	-36	Pass	401
47	74	0.1	Peak	51.95	-66.48	-54	Pass	541
74	87.5	0.1	Peak	80.008	-65.98	-36	Pass	401
87.5	118	0.1	Peak	113.7	-65.53	-54	Pass	611
118	174	0.1	Peak	160	-55.9	-36	Pass	1121
174	230	0.1	Peak	196.65	-62.61	-54	Pass	1121
230	470	0.1	Peak	400	-60.24	-36	Pass	4801
470	694	0.1	Peak	640	-45.12	-54	N/A	4481
			RMS		-58.59	-54	Pass	30000
694	1000	0.1	Peak	800	-42.89	-36	Pass	6121
1000	2360	1	Peak	2259.313	-32.83	-30	Pass	2797
2523.5	12750	1	Peak	7248.941	-37.36	-30	Pass	20530

802.11n20 30 MHz to 12.75 GHz, High channel



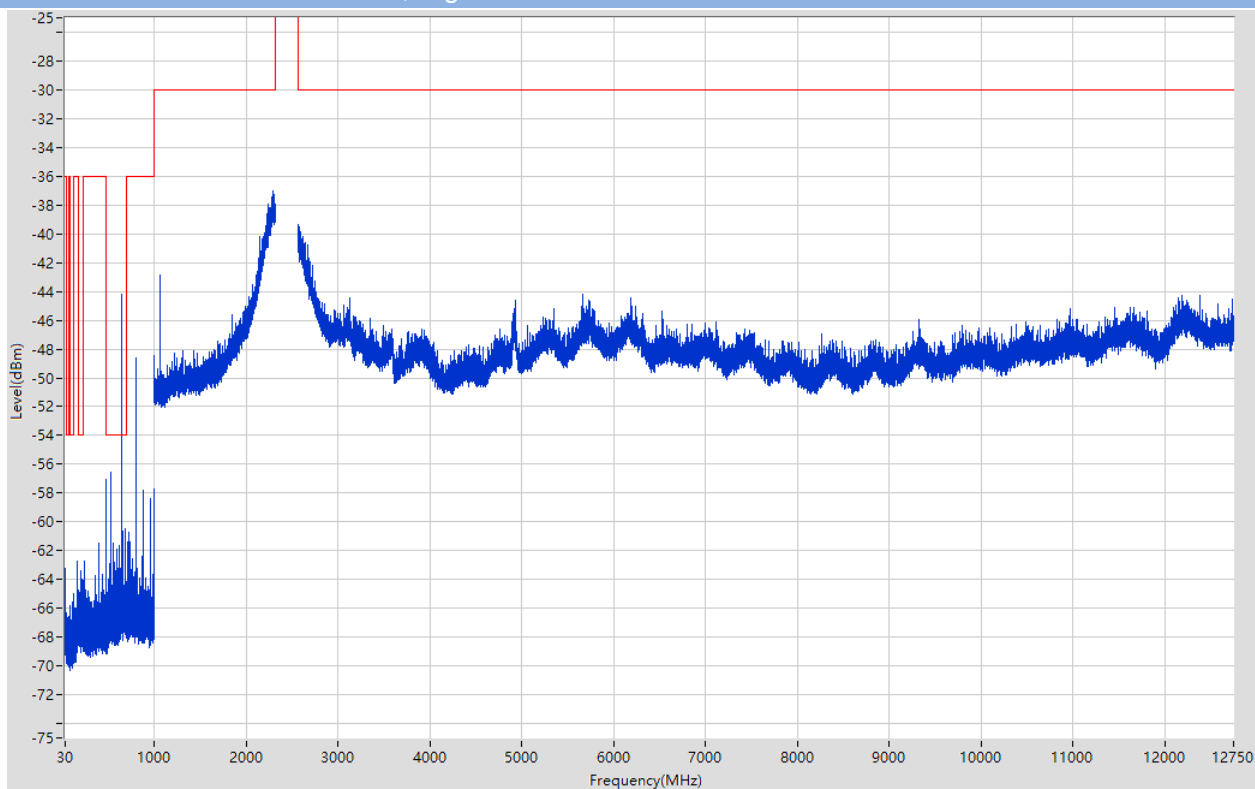
Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	47	0.1	Peak	39.69	-66.15	-36	Pass	401
47	74	0.1	Peak	55.4	-65.94	-54	Pass	541
74	87.5	0.1	Peak	80.008	-66.1	-36	Pass	401
87.5	118	0.1	Peak	116.75	-66.11	-54	Pass	611
118	174	0.1	Peak	160	-62.88	-36	Pass	1121
174	230	0.1	Peak	200.05	-63.24	-54	Pass	1121
230	470	0.1	Peak	400	-60.56	-36	Pass	4801
470	694	0.1	Peak	640	-45.26	-54	N/A	4481
			RMS		-57.51	-54	Pass	30000
694	1000	0.1	Peak	800	-43.21	-36	Pass	6121
1000	2360	1	Peak	2274.392	-37.28	-30	Pass	2797
2523.5	12750	1	Peak	7425.286	-33.97	-30	Pass	20530

802.11n40 30 MHz to 12.75 GHz, Low channel



Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	47	0.1	Peak	30	-64.73	-36	Pass	401
47	74	0.1	Peak	68.4	-66.03	-54	Pass	541
74	87.5	0.1	Peak	79.974	-64.39	-36	Pass	401
87.5	118	0.1	Peak	112.7	-66.27	-54	Pass	611
118	174	0.1	Peak	160	-59.26	-36	Pass	1121
174	230	0.1	Peak	200	-60.07	-54	Pass	1121
230	470	0.1	Peak	400	-60.75	-36	Pass	4801
470	694	0.1	Peak	640	-44.28	-54	N/A	4481
			RMS		-57.15	-54	Pass	30000
694	1000	0.1	Peak	800	-46.63	-36	Pass	6121
1000	2320	1	Peak	2257.682	-36.51	-30	Pass	2797
2563.5	12750	1	Peak	2566.973	-39.98	-30	Pass	20530

802.11n40 30 MHz to 12.75 GHz, High channel

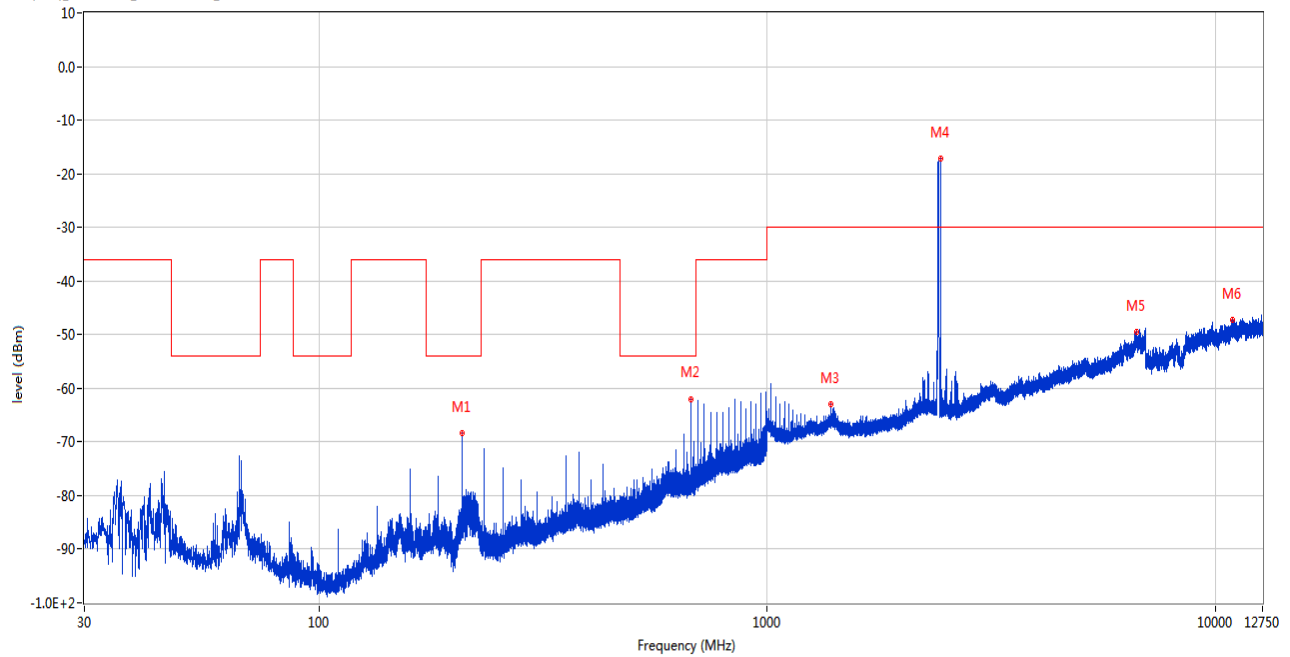


Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	47	0.1	Peak	32.508	-63.26	-36	Pass	401
47	74	0.1	Peak	72.35	-66.56	-54	Pass	541
74	87.5	0.1	Peak	80.008	-65.85	-36	Pass	401
87.5	118	0.1	Peak	111.3	-65.55	-54	Pass	611
118	174	0.1	Peak	160	-62.76	-36	Pass	1121
174	230	0.1	Peak	196.6	-63.38	-54	Pass	1121
230	470	0.1	Peak	400	-61.44	-36	Pass	4801
470	694	0.1	Peak	640	-44.24	-54	N/A	4481
			RMS		-57.55	-54	Pass	30000
694	1000	0.1	Peak	800	-48.64	-36	Pass	6121
1000	2320	1	Peak	2287.425	-37.02	-30	Pass	2797
2563.5	12750	1	Peak	2565.485	-39.35	-30	Pass	20530

Cabinet Radiation Test Data

30 MHz to 12.75 GHz, ANT H

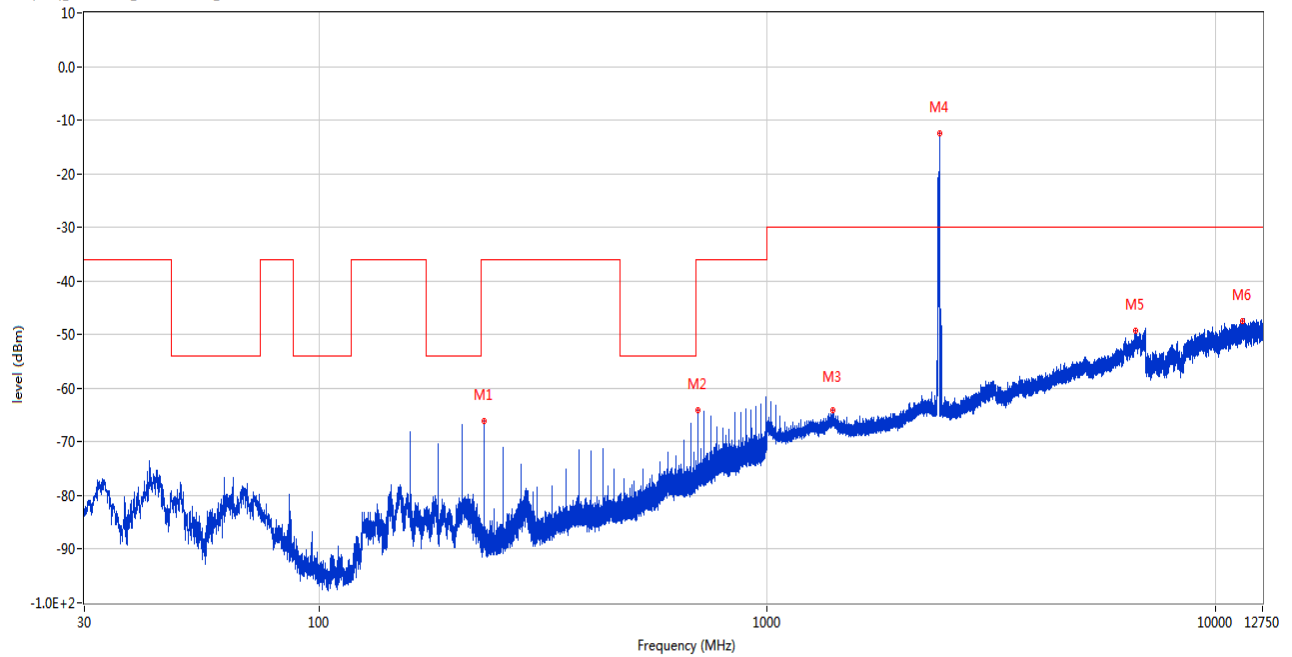
RSE (SRD)_EN 300328_EN300328 TX_30M-12.75GHz



Frequency (MHz)	Result (dBm)	Factor (dB)	PK Limit (dBm)	Over Limit (dB)	Table (o)	ANT	EUT	Verdict
208.916	-68.28	-15.94	-54.0	-14.28	123.00	Horizontal	Horizontal	Pass
675.874	-62.08	-2.96	-54.0	-8.08	303.00	Horizontal	Horizontal	Pass
1388.700	-62.98	-4.48	-30.0	-32.98	284.00	Horizontal	Horizontal	Pass
2441.900	-17.10	-2.36	-30.0	12.90	23.00	Horizontal	Horizontal	N/A
6681.000	-49.54	11.79	-30.0	-19.54	236.00	Horizontal	Horizontal	Pass
10902.813	-47.33	17.70	-30.0	-17.33	227.00	Horizontal	Horizontal	Pass

30 MHz to 12.75 GHz, ANT V

RSE (SRD)_EN 300328_EN300328 TX_30M-12.75GHz



Frequency (MHz)	Result (dBm)	Factor (dB)	PK Limit (dBm)	Over Limit (dB)	Table (o)	ANT	EUT	Verdict
233.506	-66.03	-15.33	-36.0	-30.03	85.00	Vertical	Horizontal	Pass
700.464	-64.19	-1.92	-36.0	-28.19	236.00	Vertical	Horizontal	Pass
1400.000	-64.08	-4.02	-30.0	-34.08	28.00	Vertical	Horizontal	Pass
2425.300	-12.55	-2.16	-30.0	17.45	235.00	Vertical	Horizontal	N/A
6655.600	-49.18	11.43	-30.0	-19.18	169.00	Vertical	Horizontal	Pass
11505.412	-47.49	17.72	-30.0	-17.49	18.00	Vertical	Horizontal	Pass

A.9 Receiver Spurious Emissions

Note ¹: The test method choose the conducted method. Which power in a specified load (conducted spurious emissions) and their effective radiated power when radiated by the cabinet or structure of the equipment (cabinet radiation).

Note ²: The Frequency band was pre-scanned, the harmonic and other spurious which worst frequency are recorded in the report.

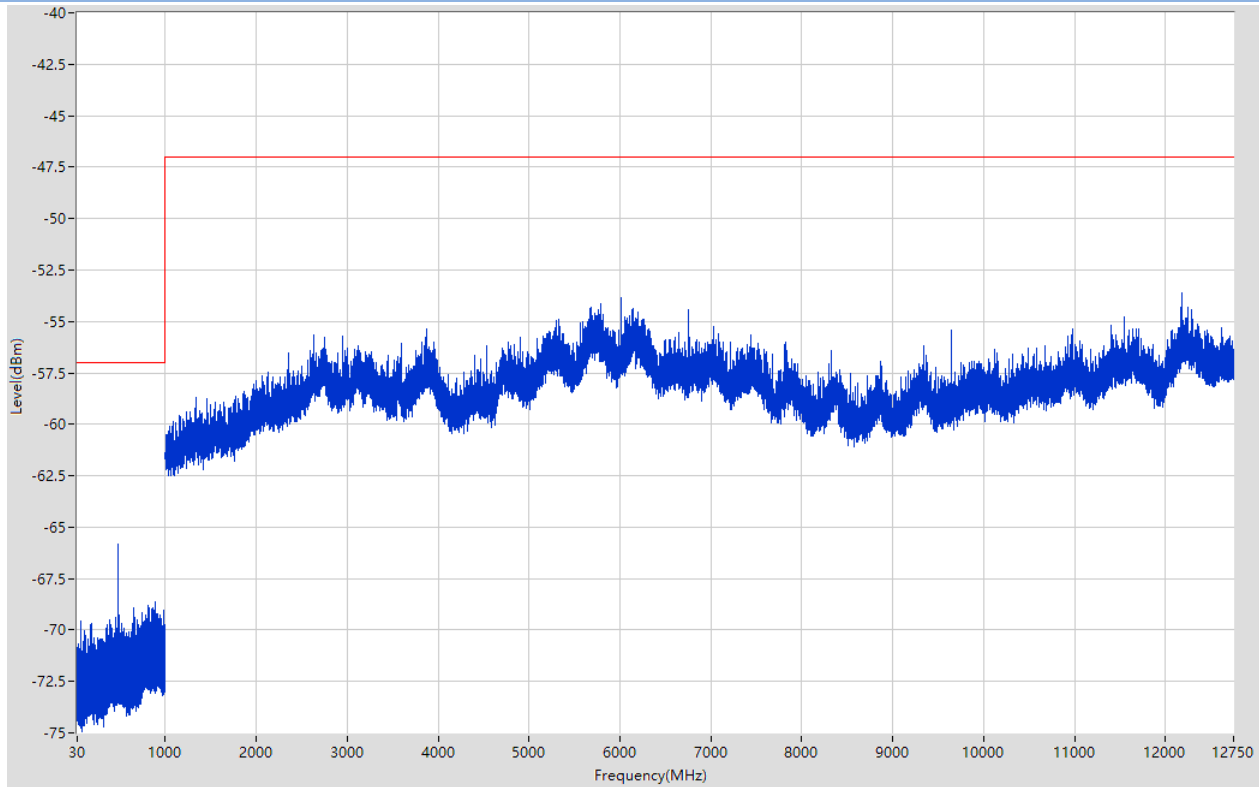
Measuring Parameter

Frequency Range		
30 MHz to 1 000 MHz	RBW (MHz)	100 kHz
	VBW (MHz)	300 kHz
	Sweep points	9970
	Detector mode	Peak
	Trace mode	Max Hold
1 GHz to 12,75 GHz	RBW (MHz)	1 MHz
	VBW (MHz)	3 MHz
	Sweep points	11750
	Detector mode	Peak
	Trace mode	Max Hold

Conducted Test Data

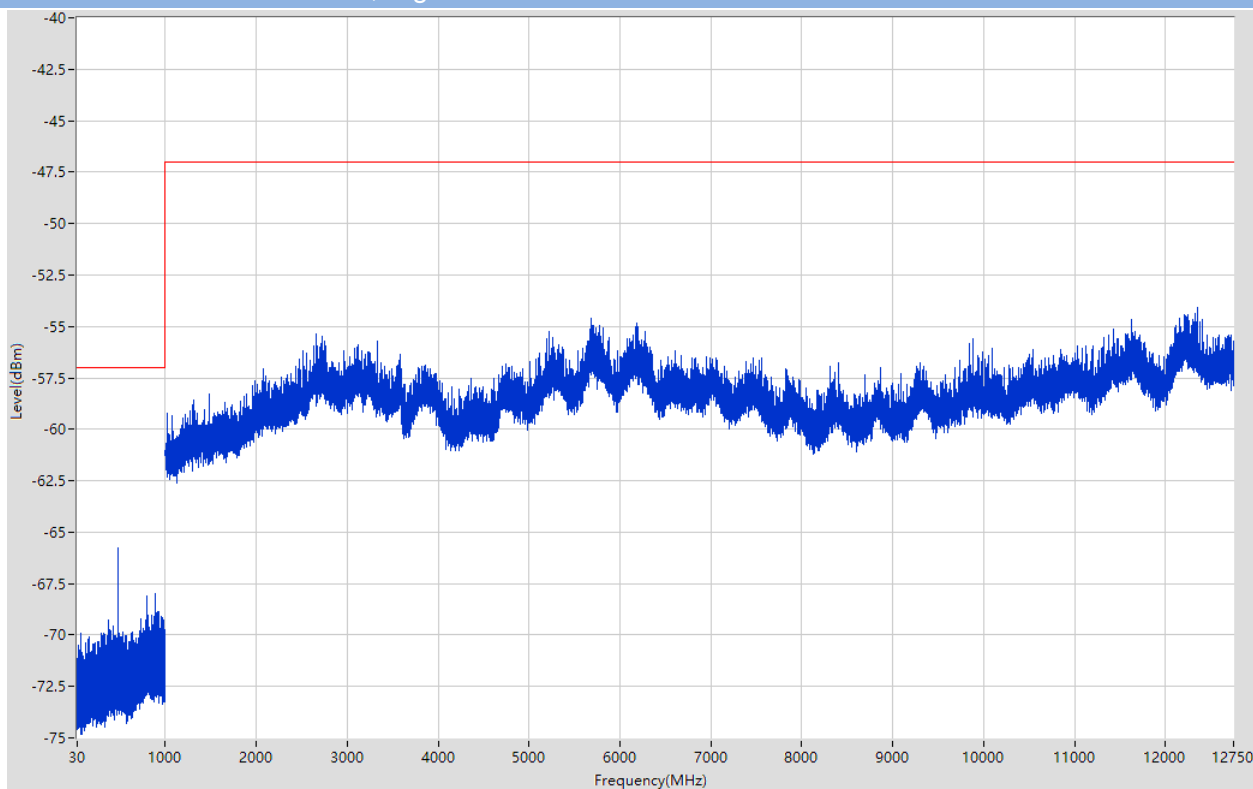
Main Antenna

802.11b 30 MHz to 12.75 GHz, Low channel



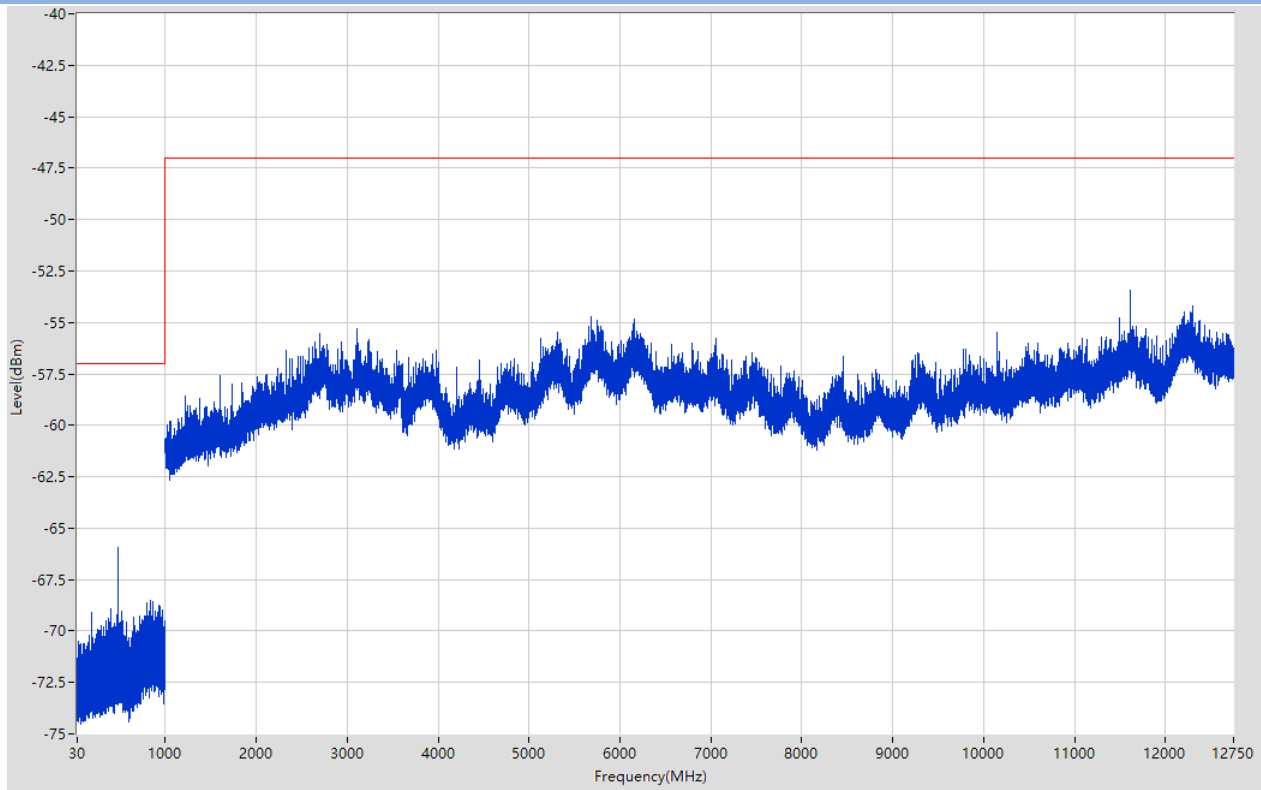
Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	1000	0.1	Peak	480.05	-65.82	-57	Pass	19401
1000	12750	1	Peak	12176	-53.61	-47	Pass	23501

802.11b 30 MHz to 12.75 GHz, High channel



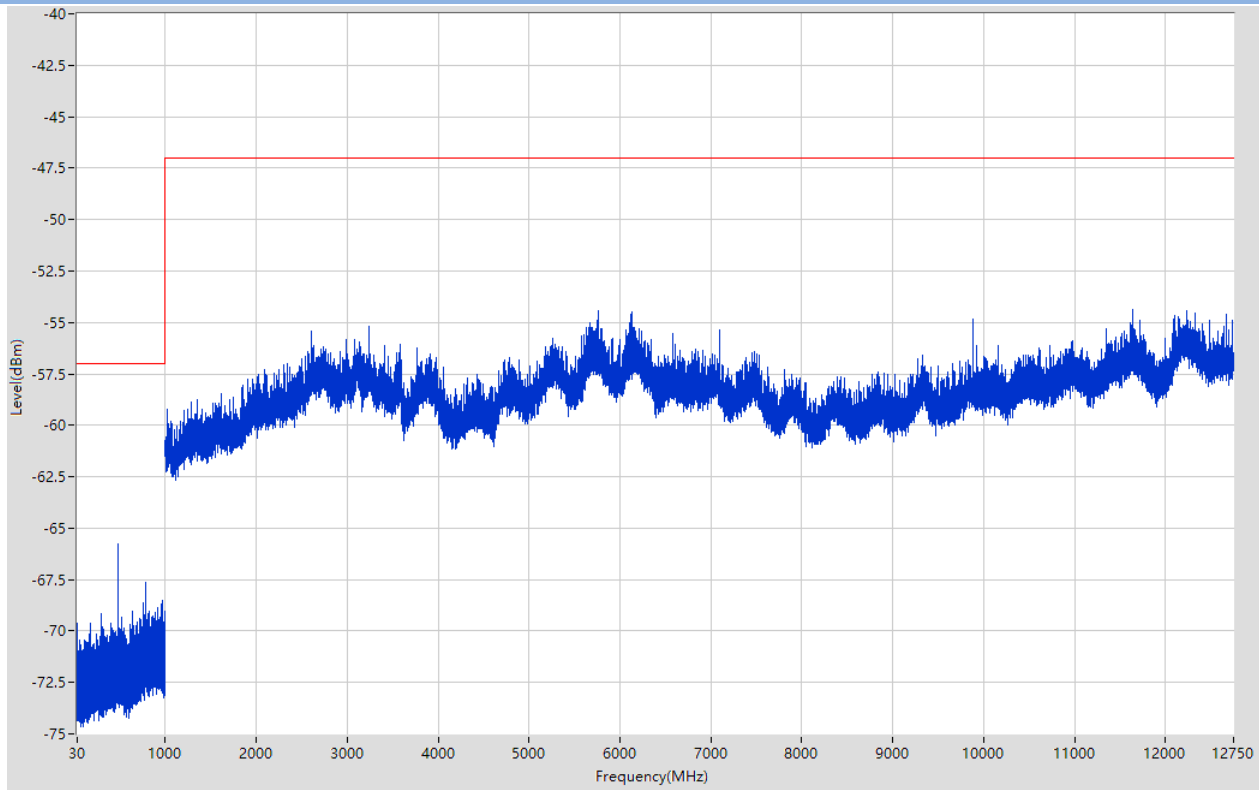
Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	1000	0.1	Peak	480	-65.79	-57	Pass	19401
1000	12750	1	Peak	12359.5	-54.09	-47	Pass	23501

802.11g 30 MHz to 12.75 GHz, Low channel



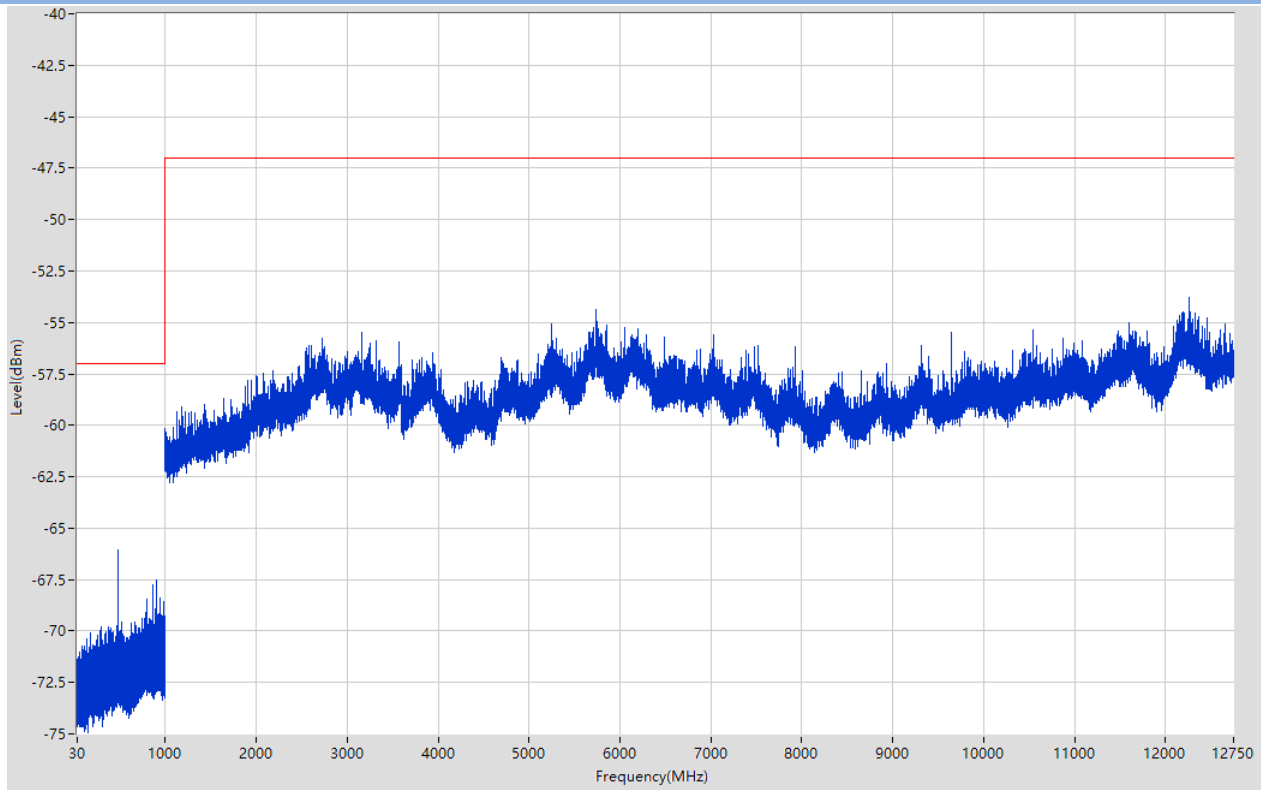
Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	1000	0.1	Peak	480	-65.95	-57	Pass	19401
1000	12750	1	Peak	11619	-53.42	-47	Pass	23501

802.11g 30 MHz to 12.75 GHz, High channel



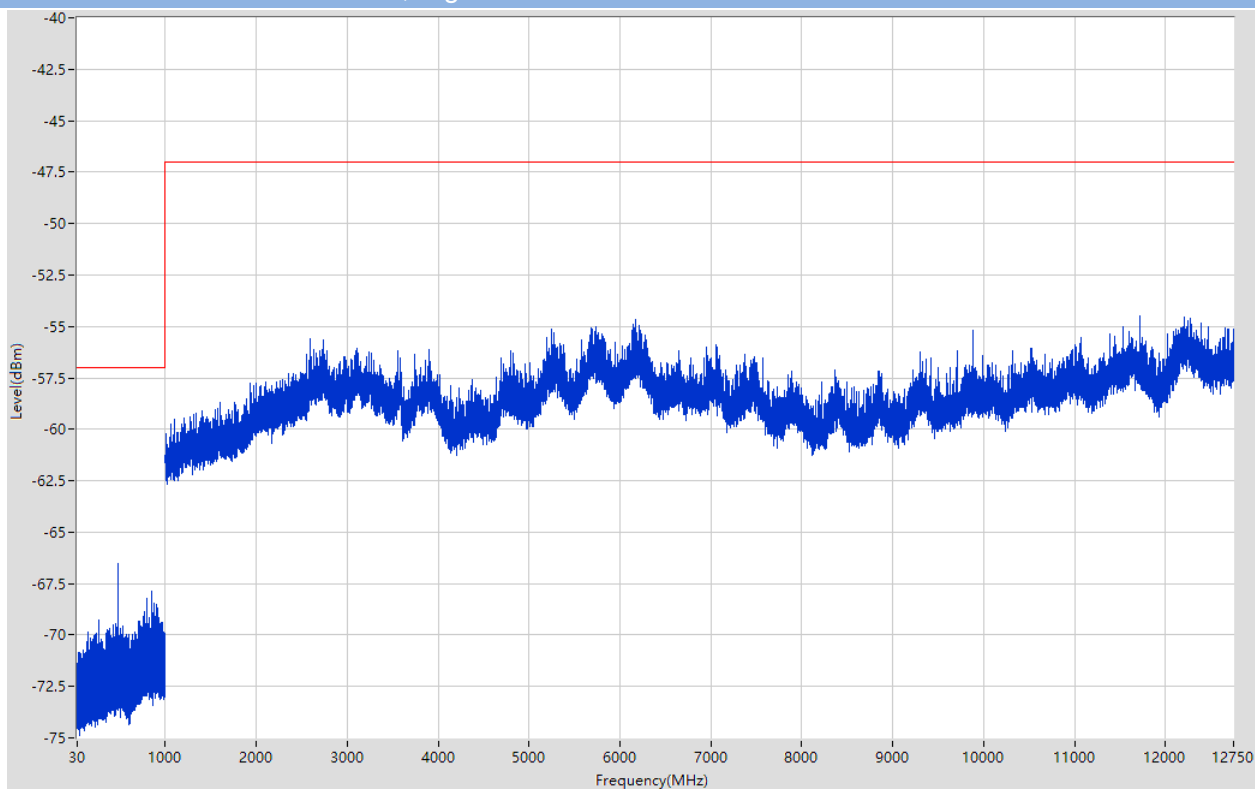
Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	1000	0.1	Peak	480	-65.77	-57	Pass	19401
1000	12750	1	Peak	11638.5	-54.37	-47	Pass	23501

802.11n20 30 MHz to 12.75 GHz, Low channel



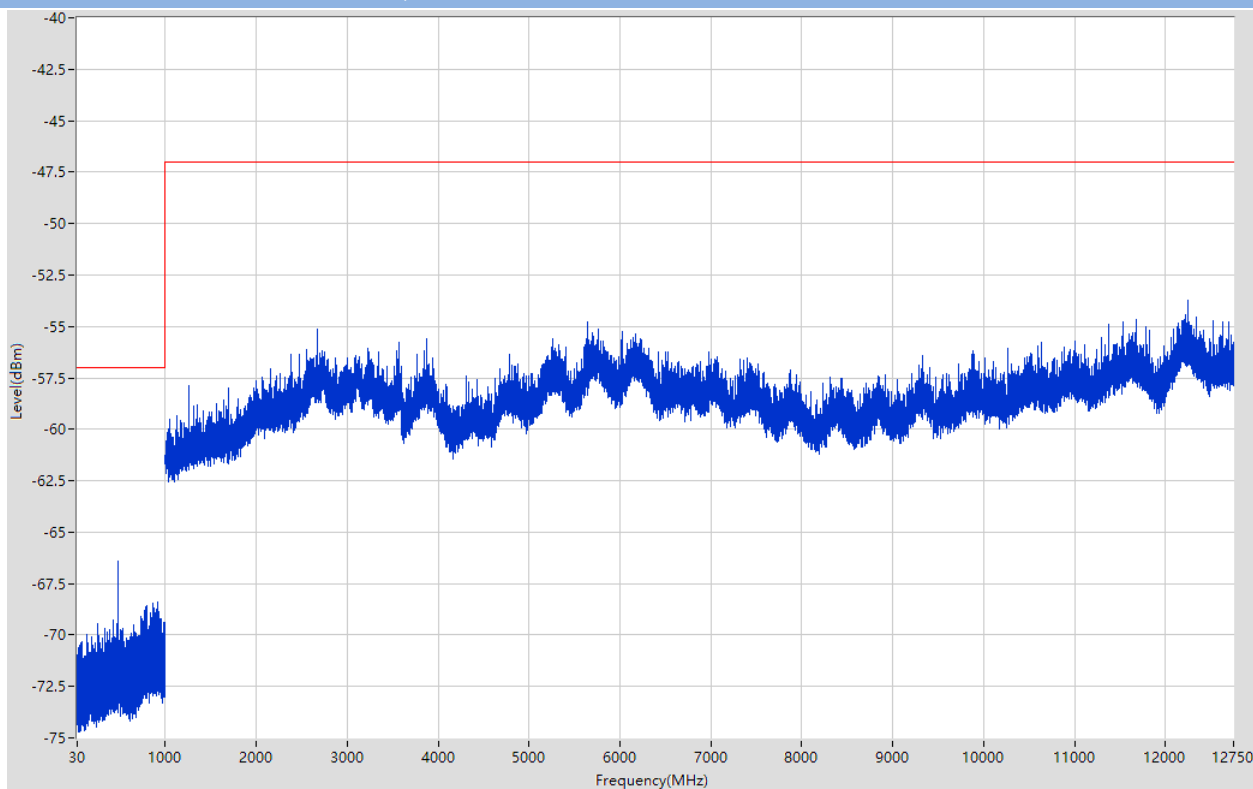
Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	1000	0.1	Peak	480	-66.08	-57	Pass	19401
1000	12750	1	Peak	12258	-53.77	-47	Pass	23501

802.11n20 30 MHz to 12.75 GHz, High channel



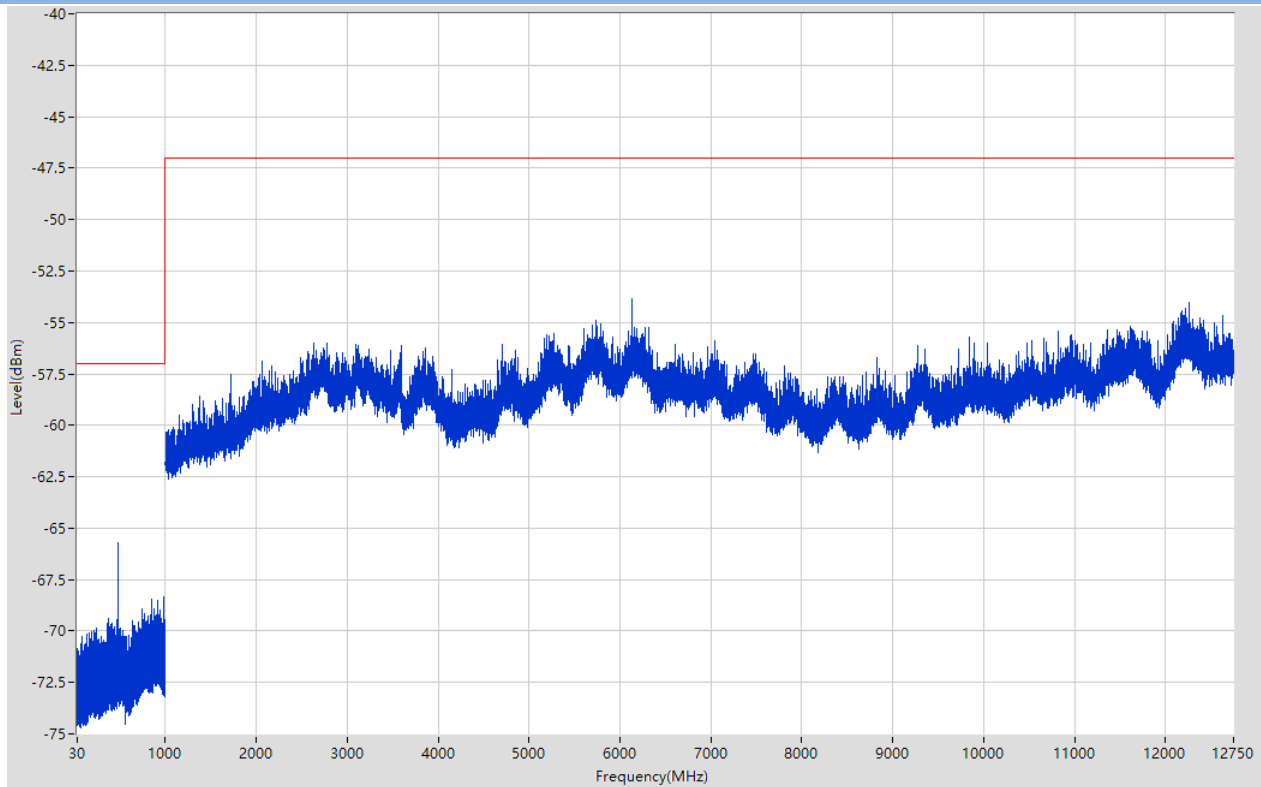
Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	1000	0.1	Peak	480	-66.55	-57	Pass	19401
1000	12750	1	Peak	11725	-54.51	-47	Pass	23501

802.11n40 30 MHz to 12.75 GHz, Low channel



Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	1000	0.1	Peak	480	-66.39	-57	Pass	19401
1000	12750	1	Peak	12248	-53.72	-47	Pass	23501

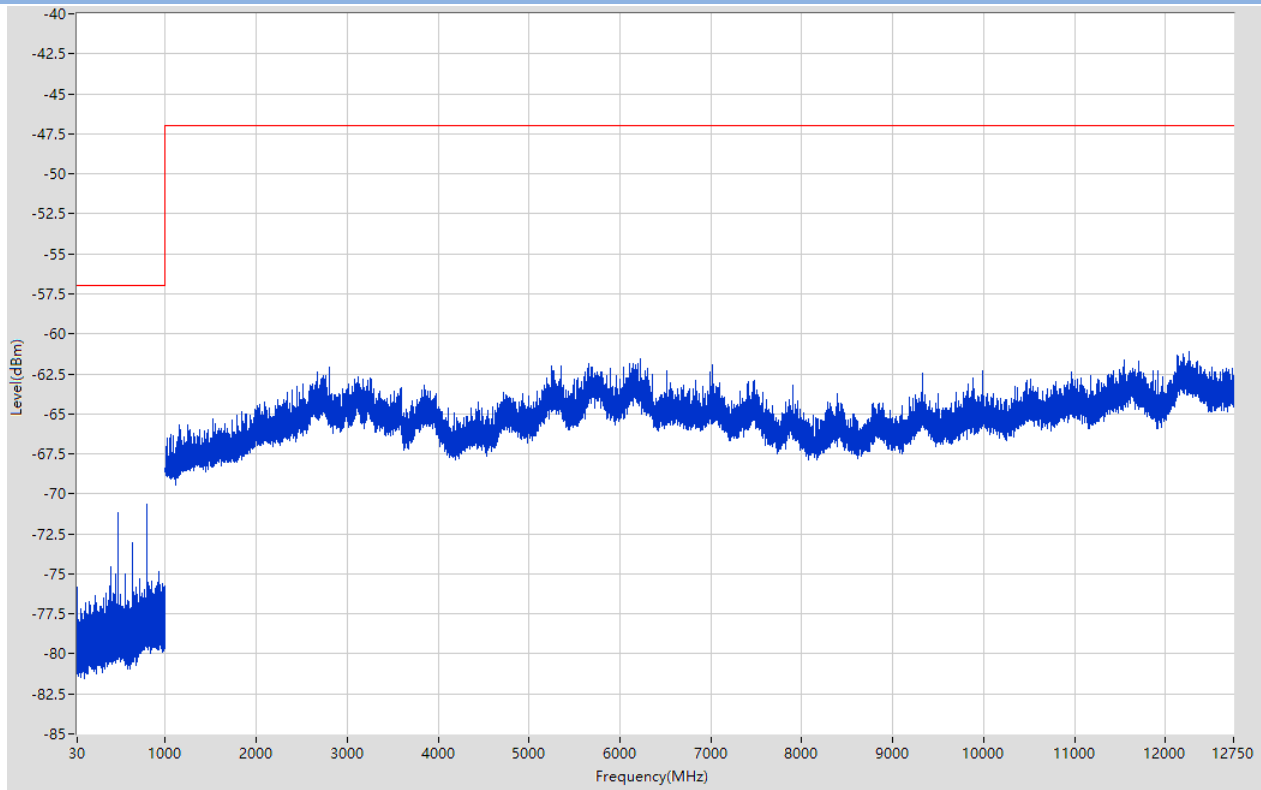
802.11n40 30 MHz to 12.75 GHz, High channel



Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	1000	0.1	Peak	480	-65.73	-57	Pass	19401
1000	12750	1	Peak	6133	-53.85	-47	Pass	23501

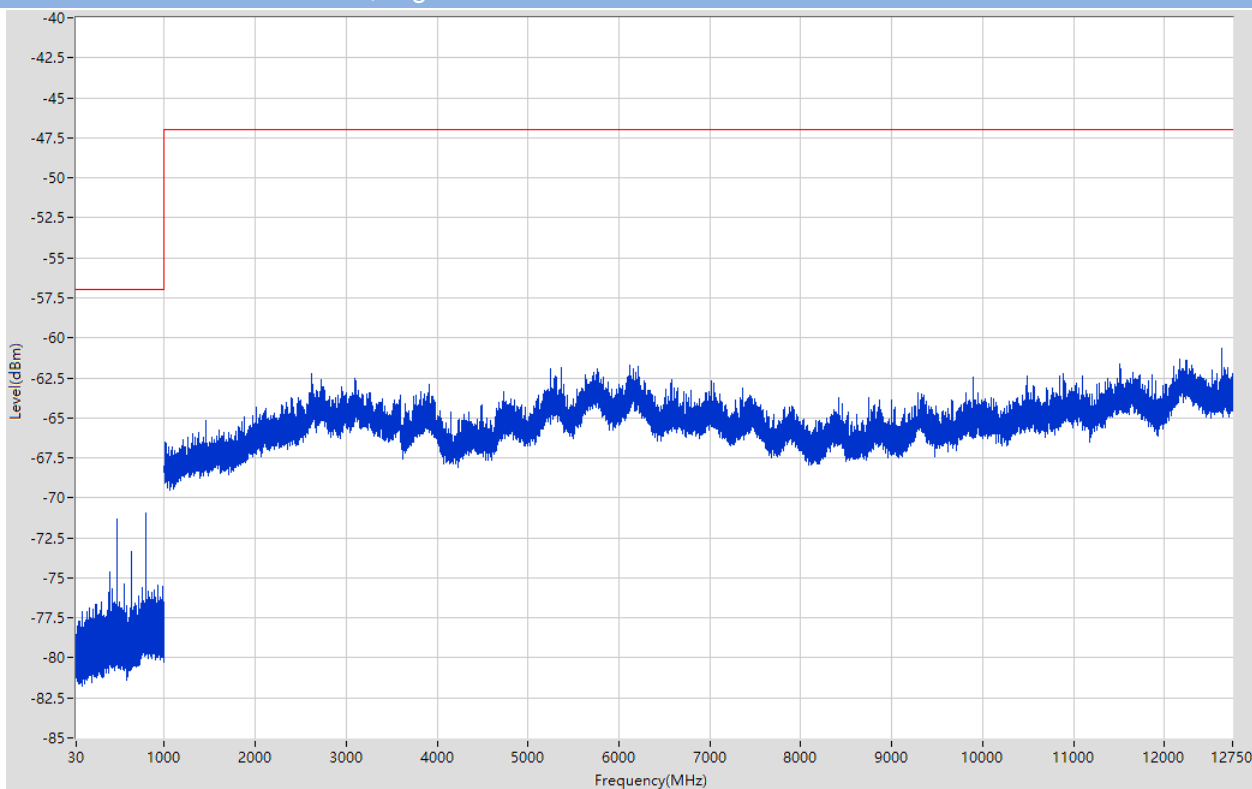
Aux. Antenna

802.11b 30 MHz to 12.75 GHz, Low channel



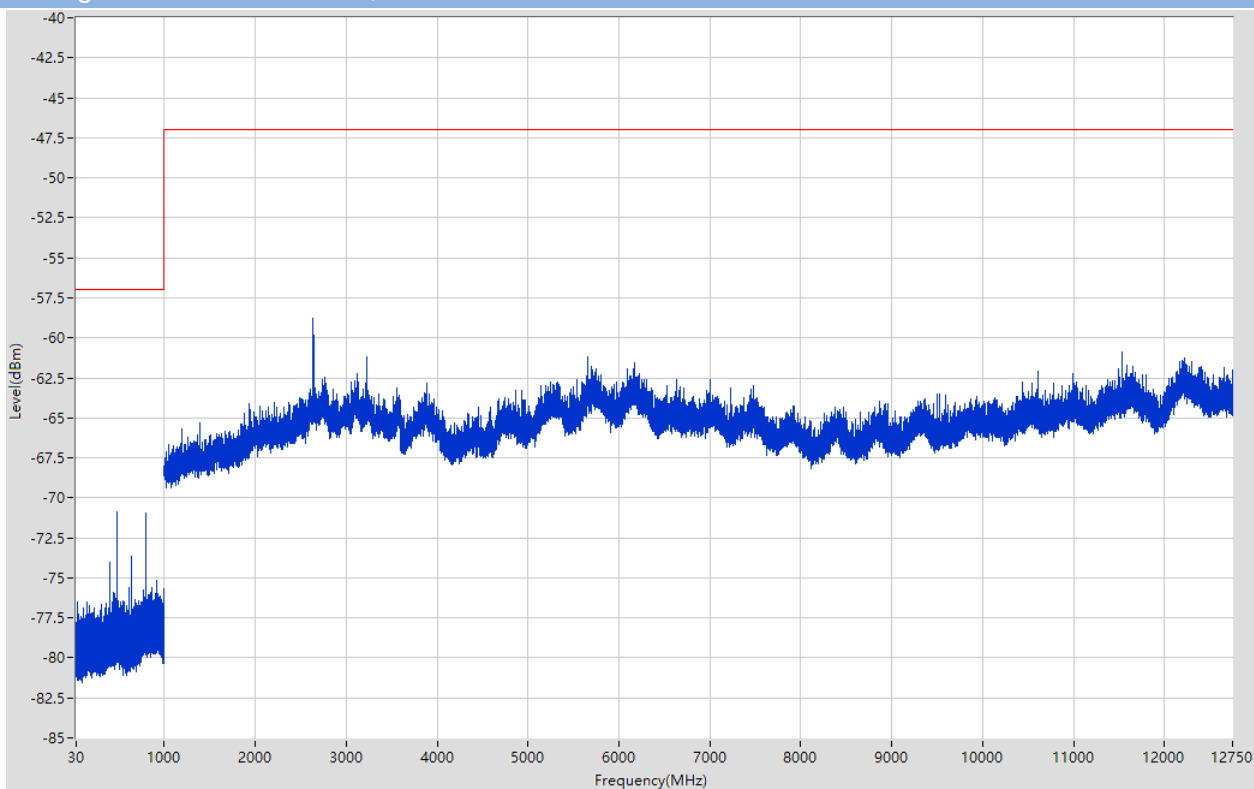
Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	1000	0.1	Peak	800	-70.68	-57	Pass	19401
1000	12750	1	Peak	12261.5	-61.07	-47	Pass	23501

802.11b 30 MHz to 12.75 GHz, High channel



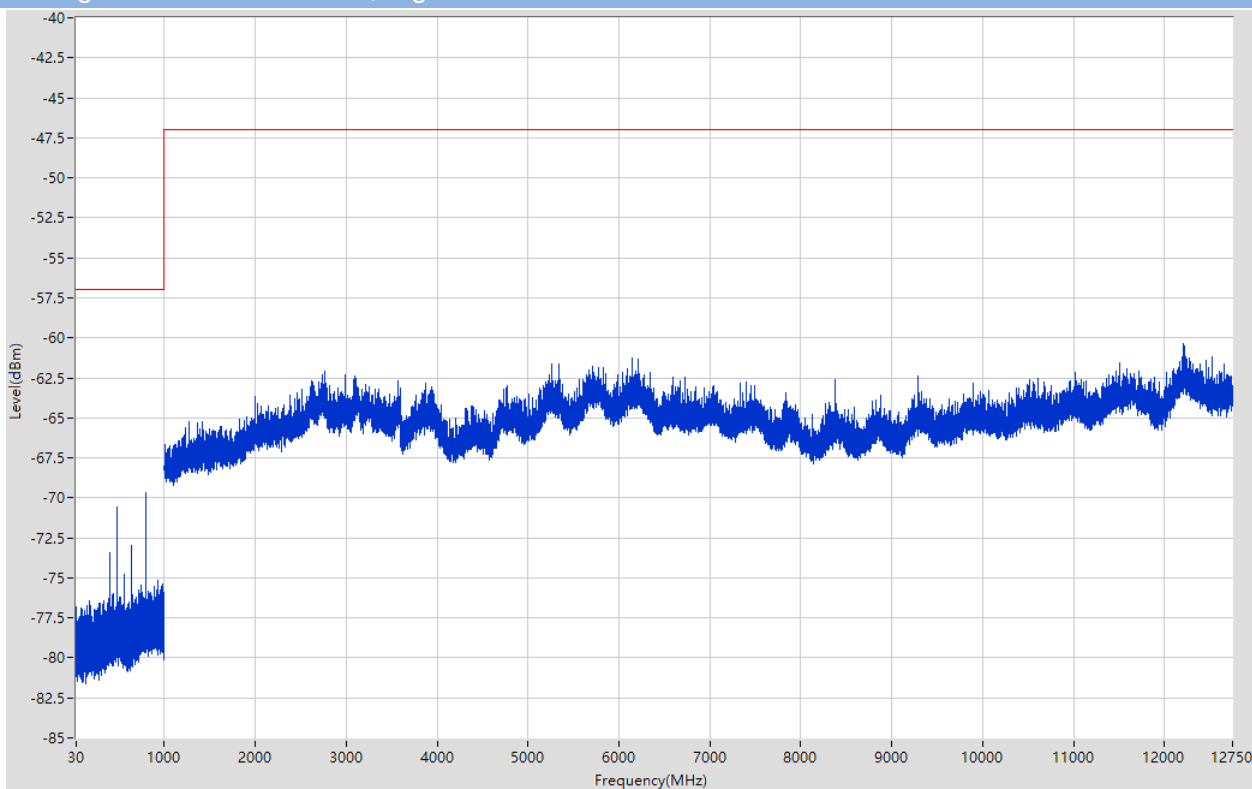
Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	1000	0.1	Peak	800	-70.95	-57	Pass	19401
1000	12750	1	Peak	12626	-60.63	-47	Pass	23501

802.11g 30 MHz to 12.75 GHz, Low channel



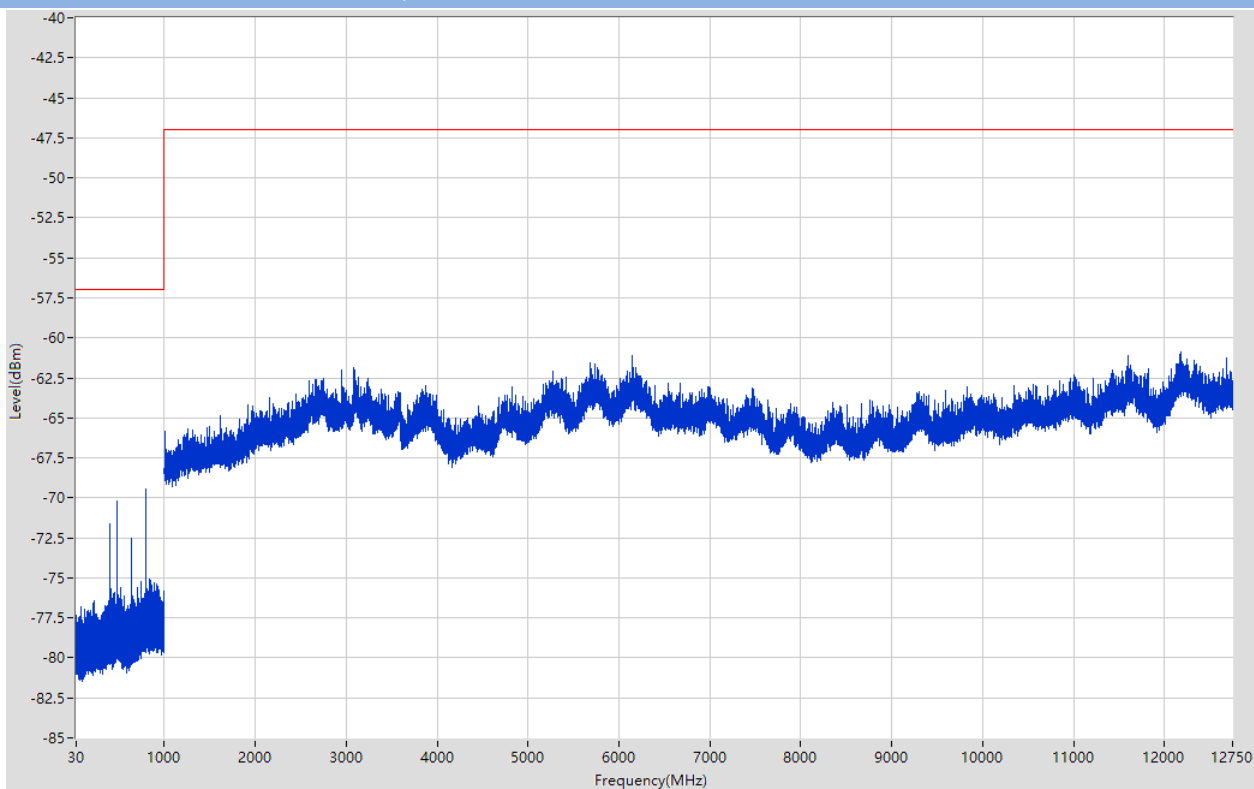
Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	1000	0.1	Peak	480	-70.9	-57	Pass	19401
1000	12750	1	Peak	2637	-58.77	-47	Pass	23501

802.11g 30 MHz to 12.75 GHz, High channel



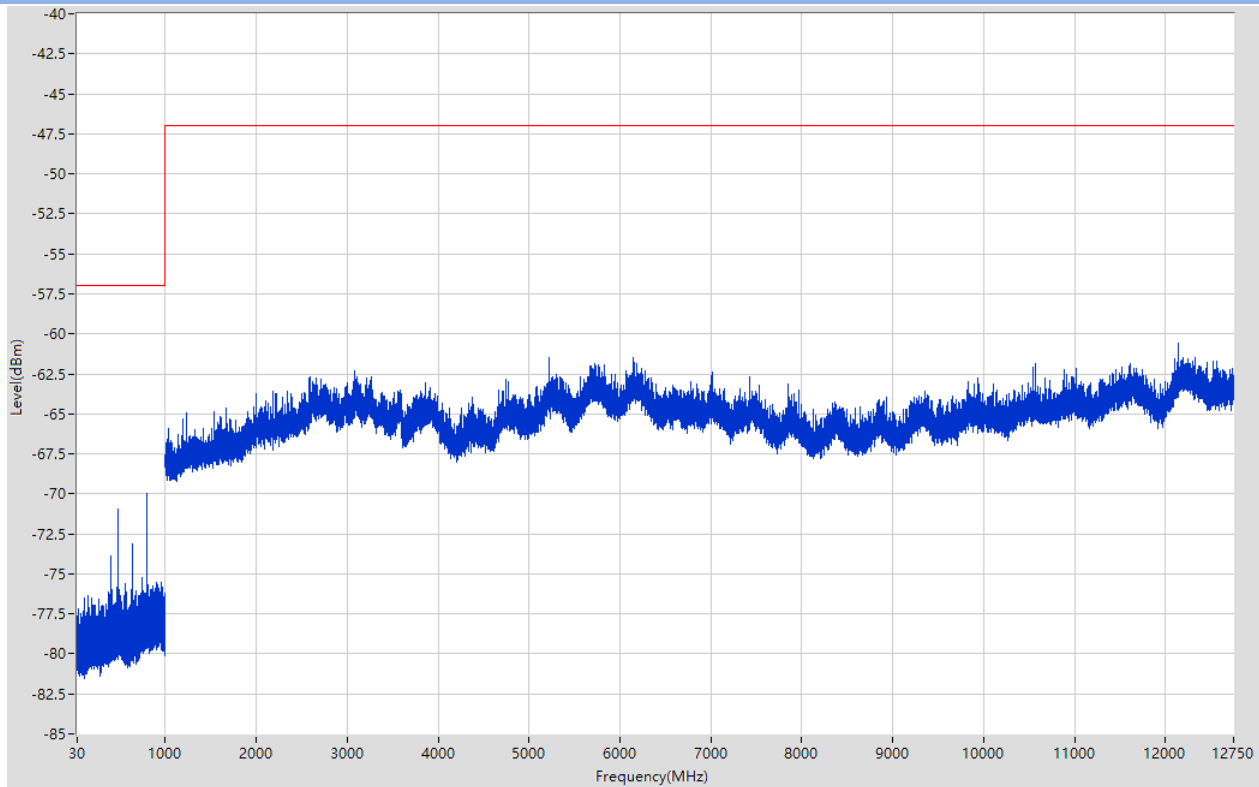
Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	1000	0.1	Peak	800	-69.71	-57	Pass	19401
1000	12750	1	Peak	12205	-60.37	-47	Pass	23501

802.11n20 30 MHz to 12.75 GHz, Low channel



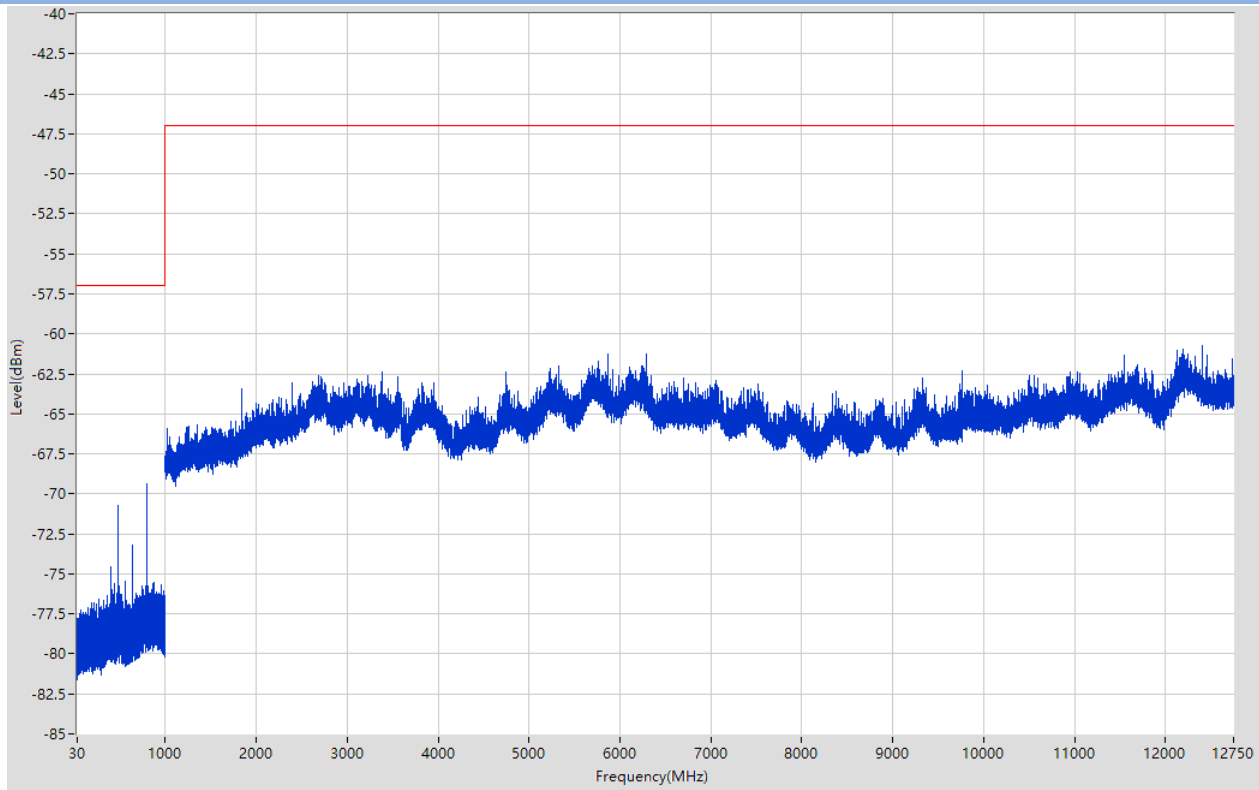
Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	1000	0.1	Peak	800	-69.49	-57	Pass	19401
1000	12750	1	Peak	12180.5	-60.91	-47	Pass	23501

802.11n20 30 MHz to 12.75 GHz, High channel



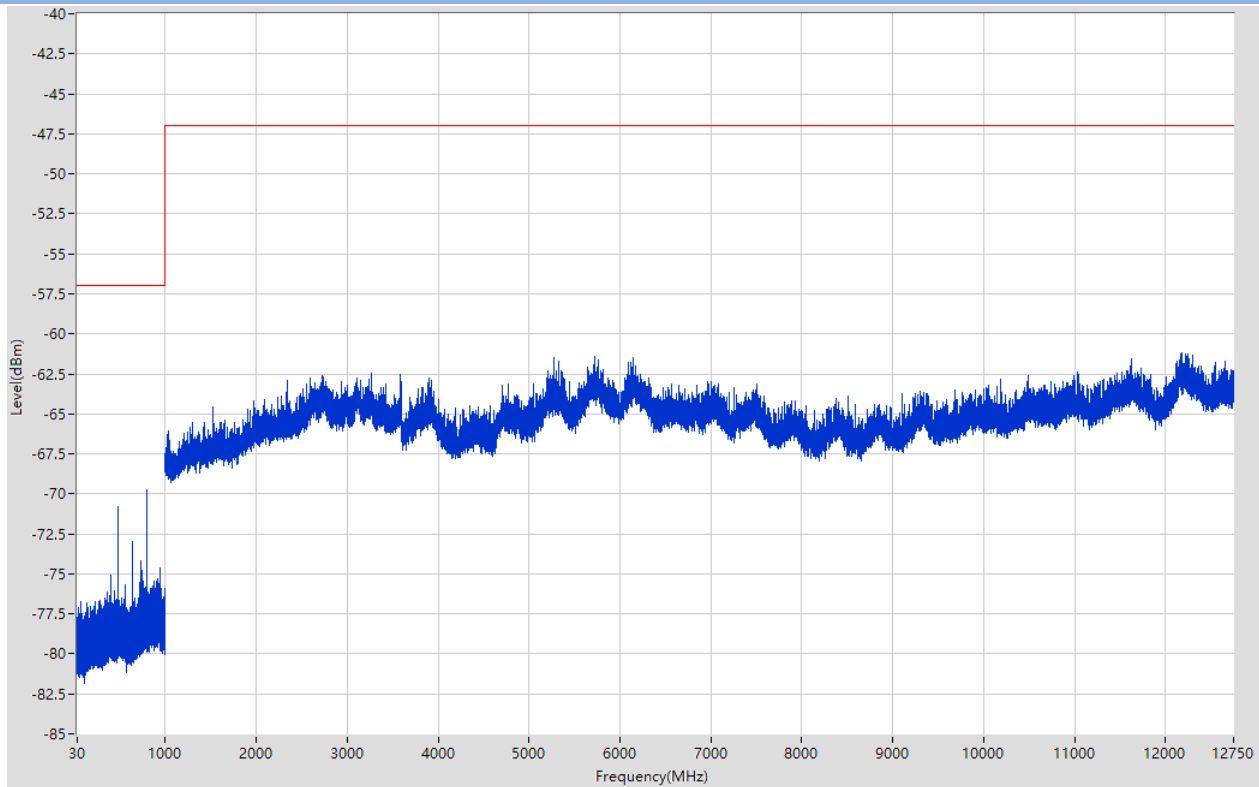
Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	1000	0.1	Peak	800	-69.97	-57	Pass	19401
1000	12750	1	Peak	12137	-60.6	-47	Pass	23501

802.11n40 30 MHz to 12.75 GHz, Low channel



Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	1000	0.1	Peak	800	-69.36	-57	Pass	19401
1000	12750	1	Peak	12408.5	-60.74	-47	Pass	23501

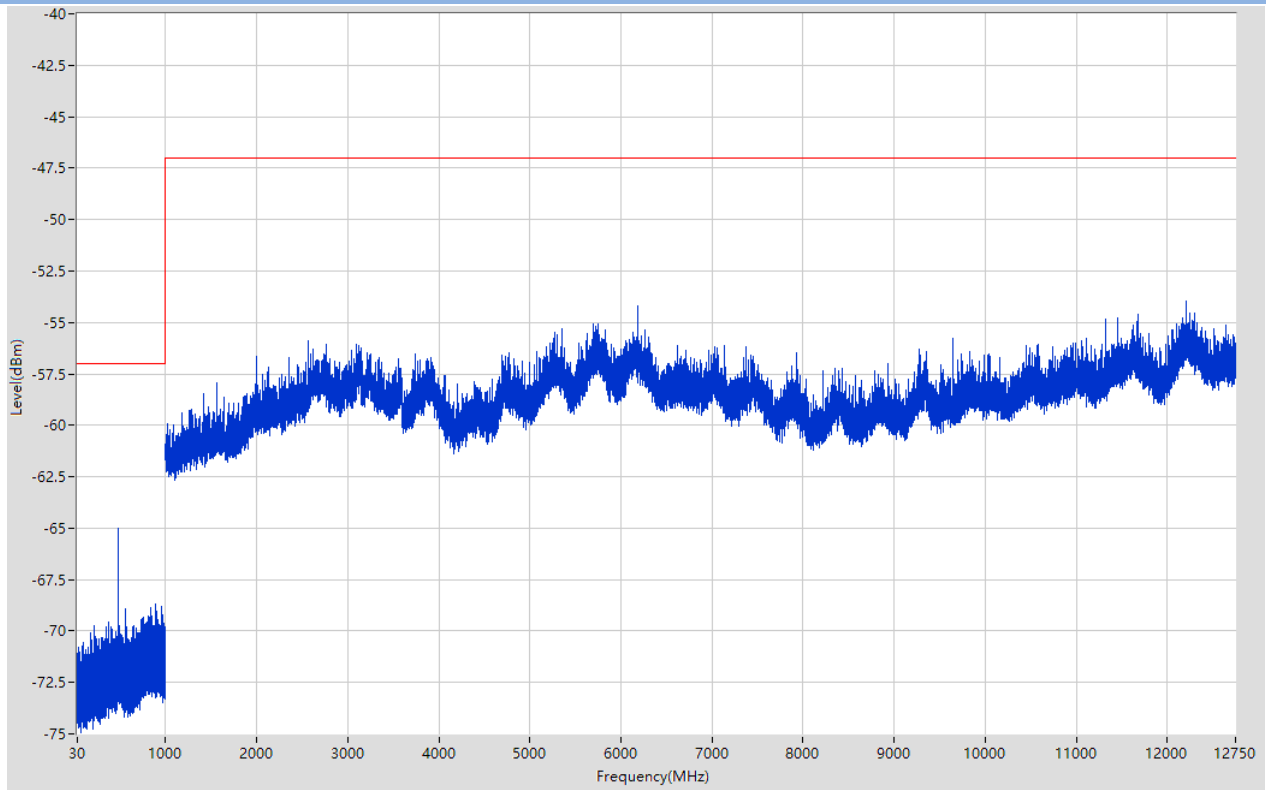
802.11n40 30 MHz to 12.75 GHz, High channel



Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	1000	0.1	Peak	800	-69.73	-57	Pass	19401
1000	12750	1	Peak	12186.5	-61.15	-47	Pass	23501

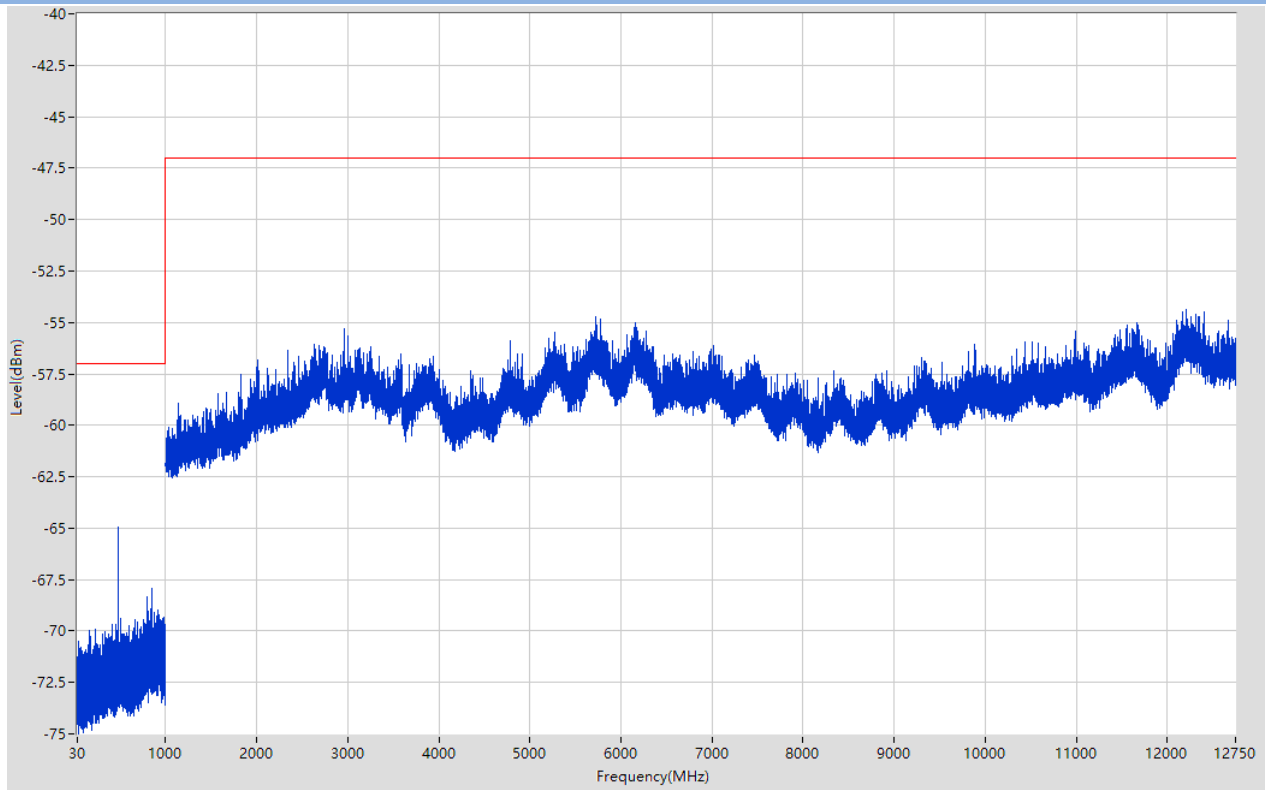
MIMO-Main Antenna

802.11n20 30 MHz to 12.75 GHz, Low channel



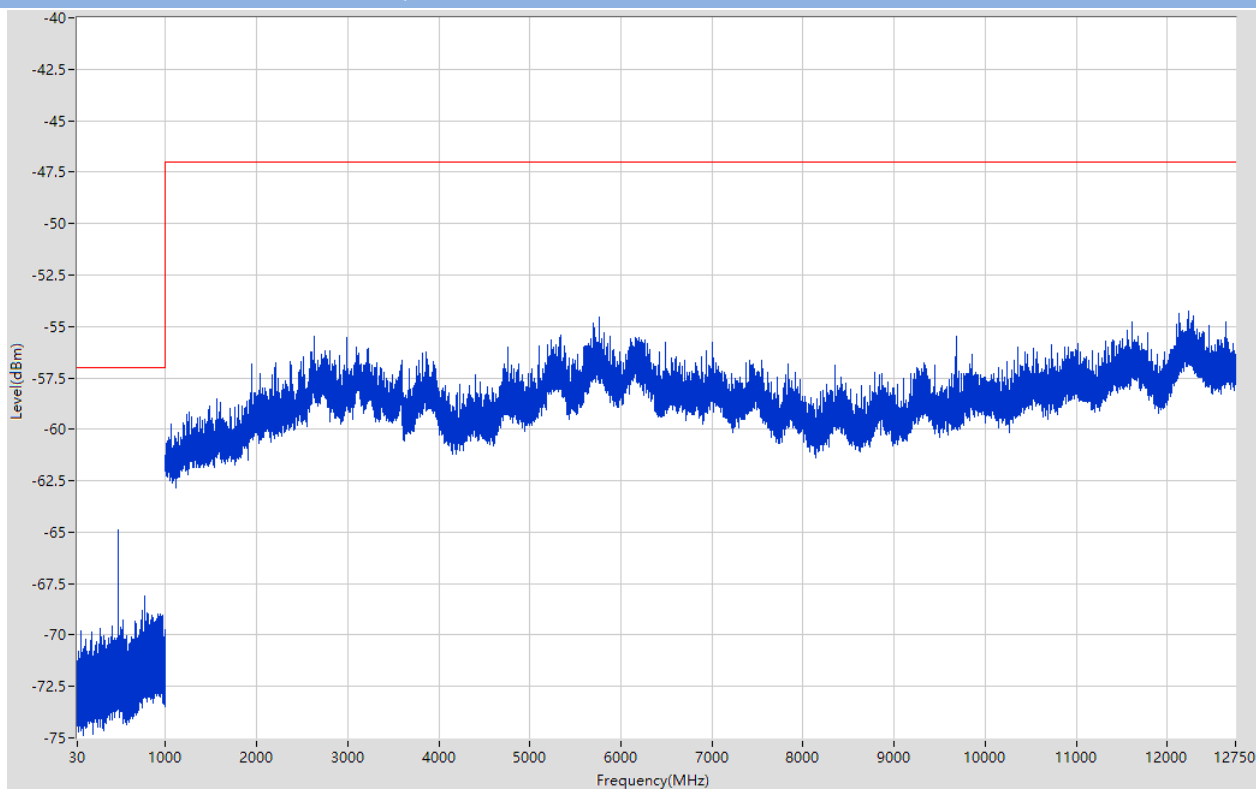
Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	1000	0.1	Peak	480	-65.01	-57	Pass	19401
1000	12750	1	Peak	12204.5	-53.96	-47	Pass	23501

802.11n20 30 MHz to 12.75 GHz, High channel



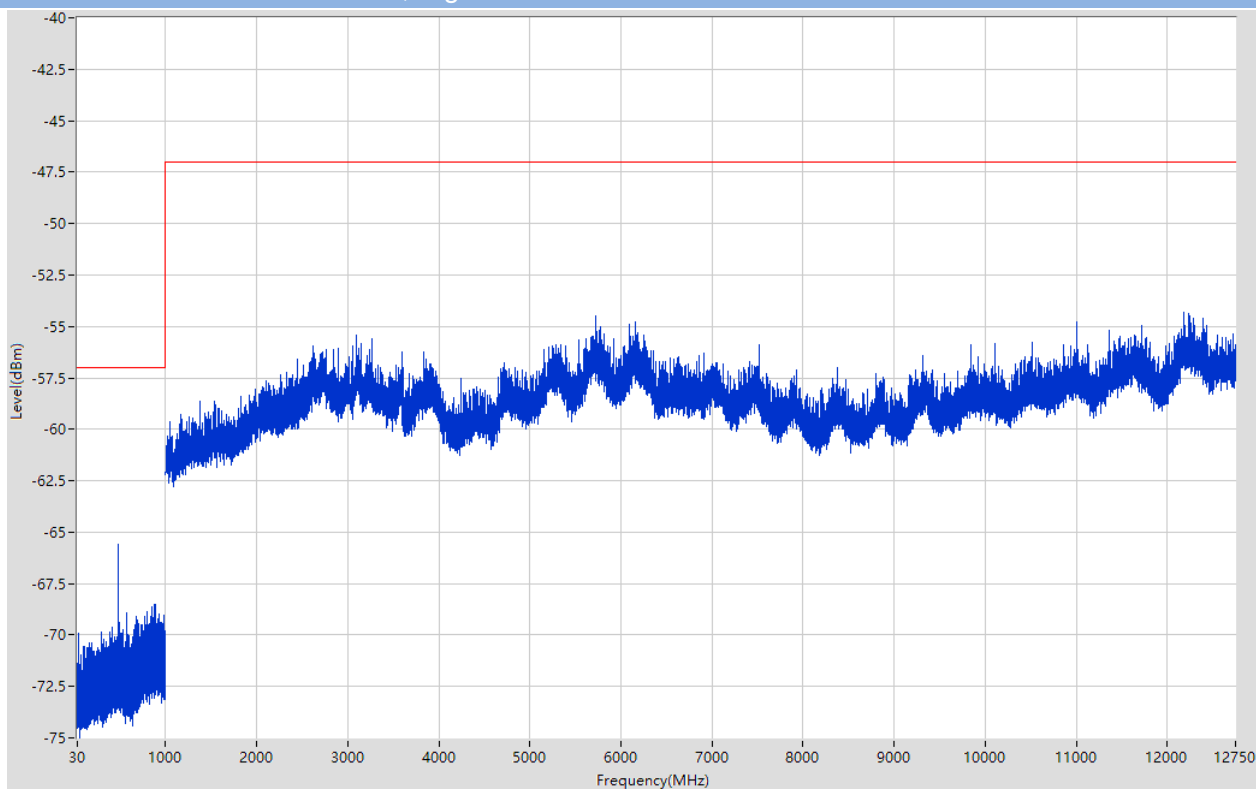
Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	1000	0.1	Peak	480	-64.97	-57	Pass	19401
1000	12750	1	Peak	12205.5	-54.4	-47	Pass	23501

802.11n40 30 MHz to 12.75 GHz, Low channel



Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	1000	0.1	Peak	480	-64.92	-57	Pass	19401
1000	12750	1	Peak	12238.5	-54.23	-47	Pass	23501

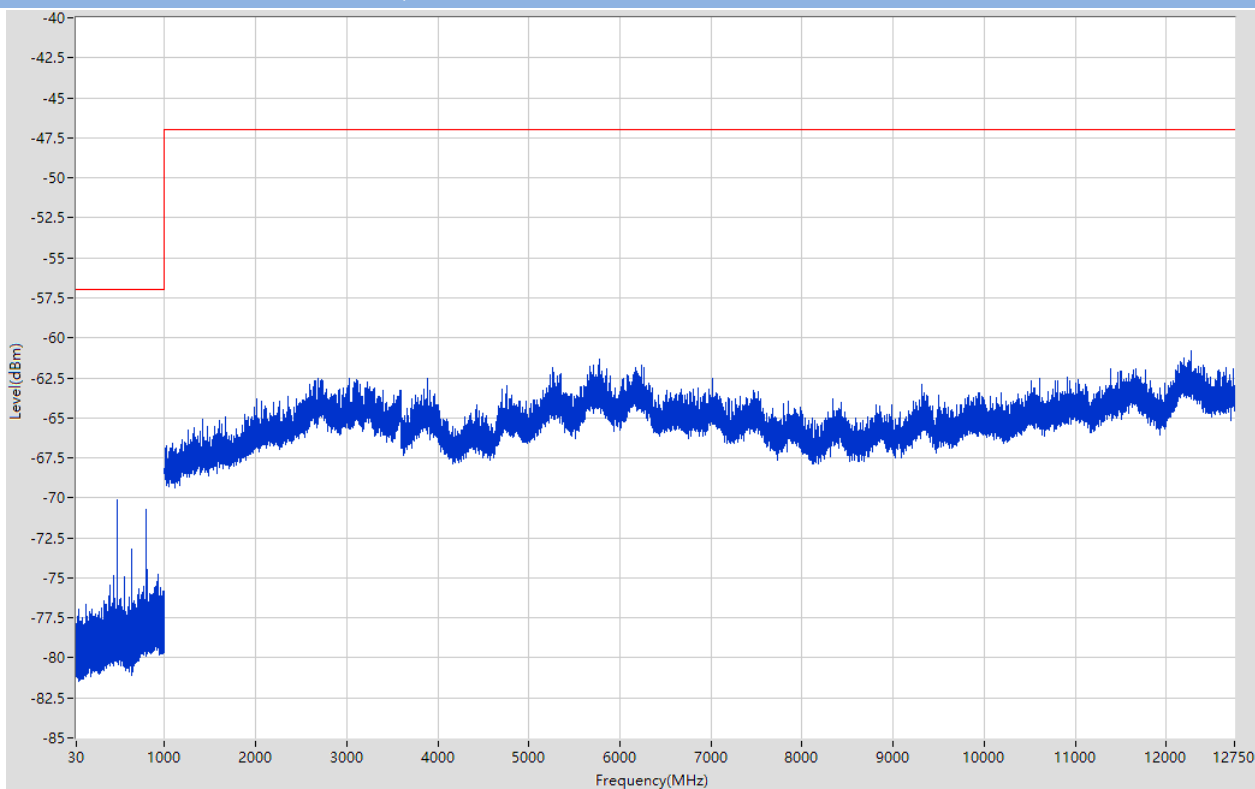
802.11n40 30 MHz to 12.75 GHz, High channel



Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	1000	0.1	Peak	480	-65.59	-57	Pass	19401
1000	12750	1	Peak	12178.5	-54.31	-47	Pass	23501

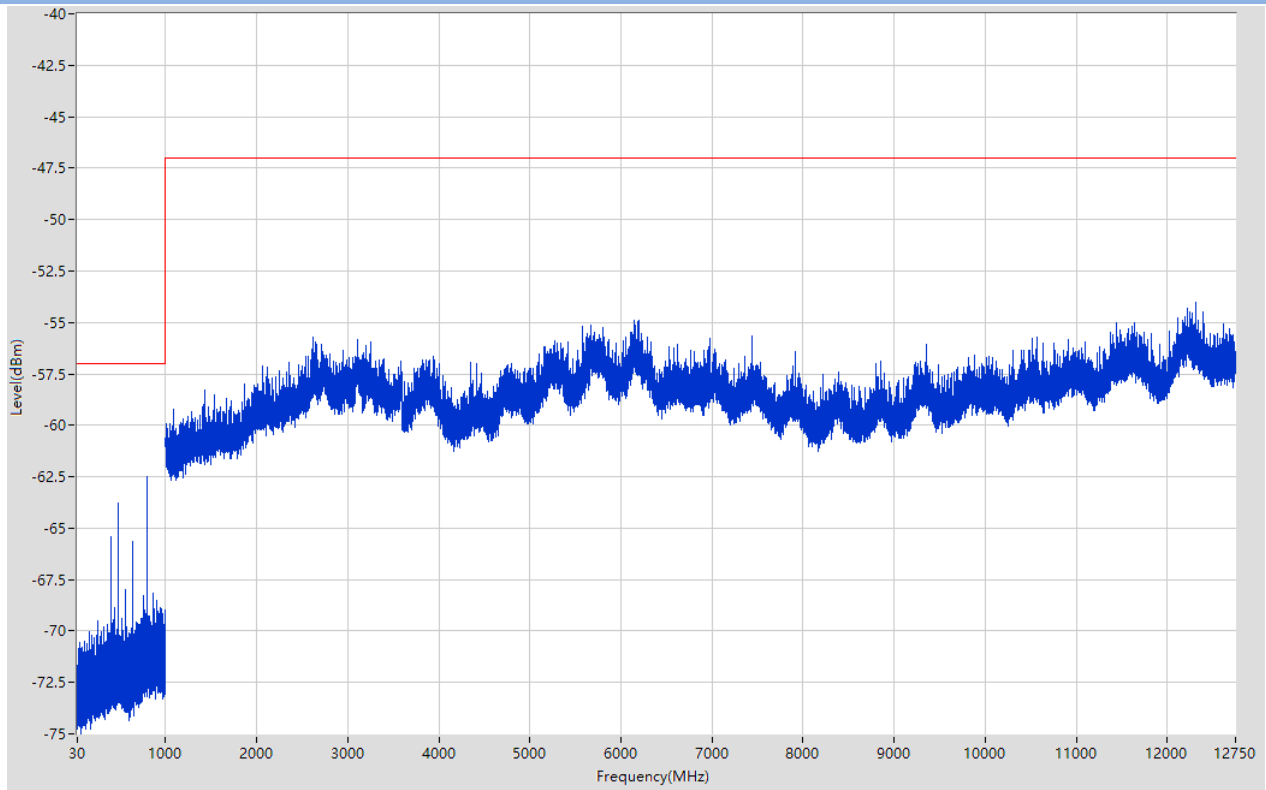
MIMO-Aux. Antenna

802.11n20 30 MHz to 12.75 GHz, Low channel



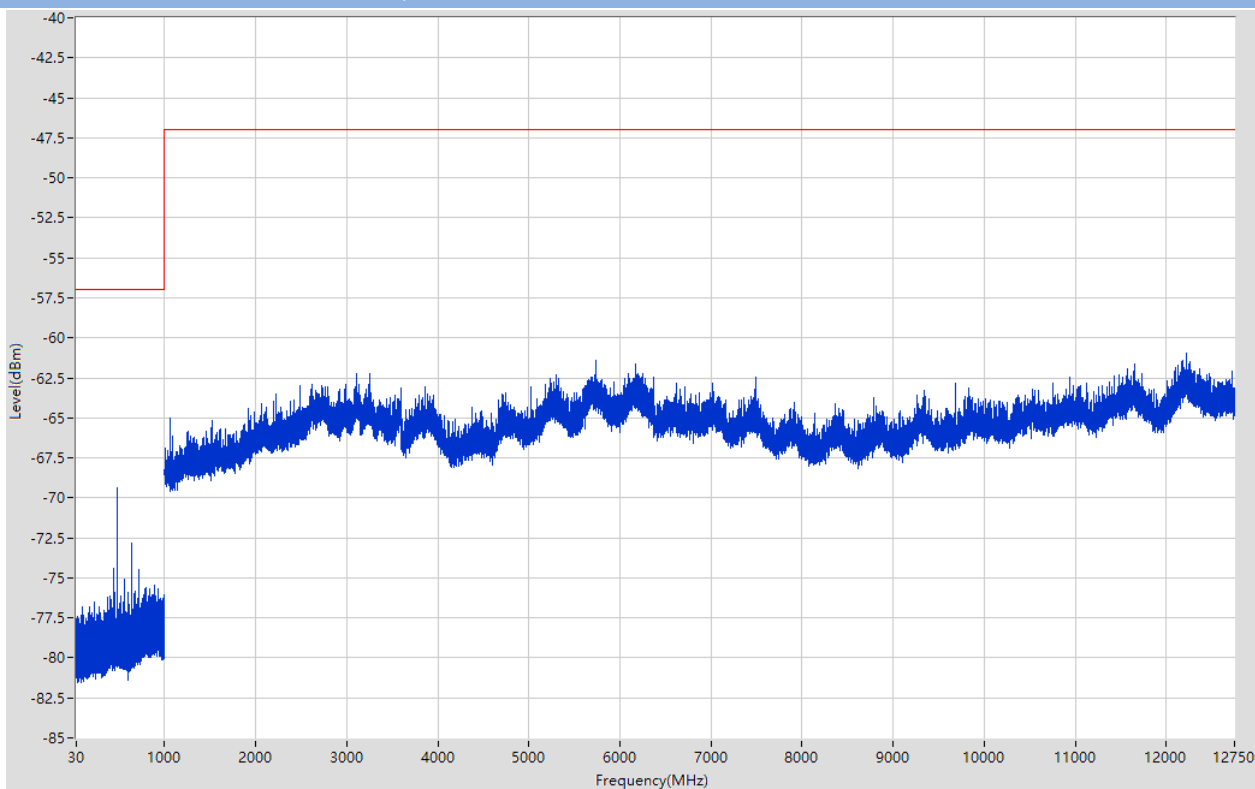
Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	1000	0.1	Peak	480	-70.09	-57	Pass	19401
1000	12750	1	Peak	12277	-60.8	-47	Pass	23501

802.11n20 30 MHz to 12.75 GHz, High channel



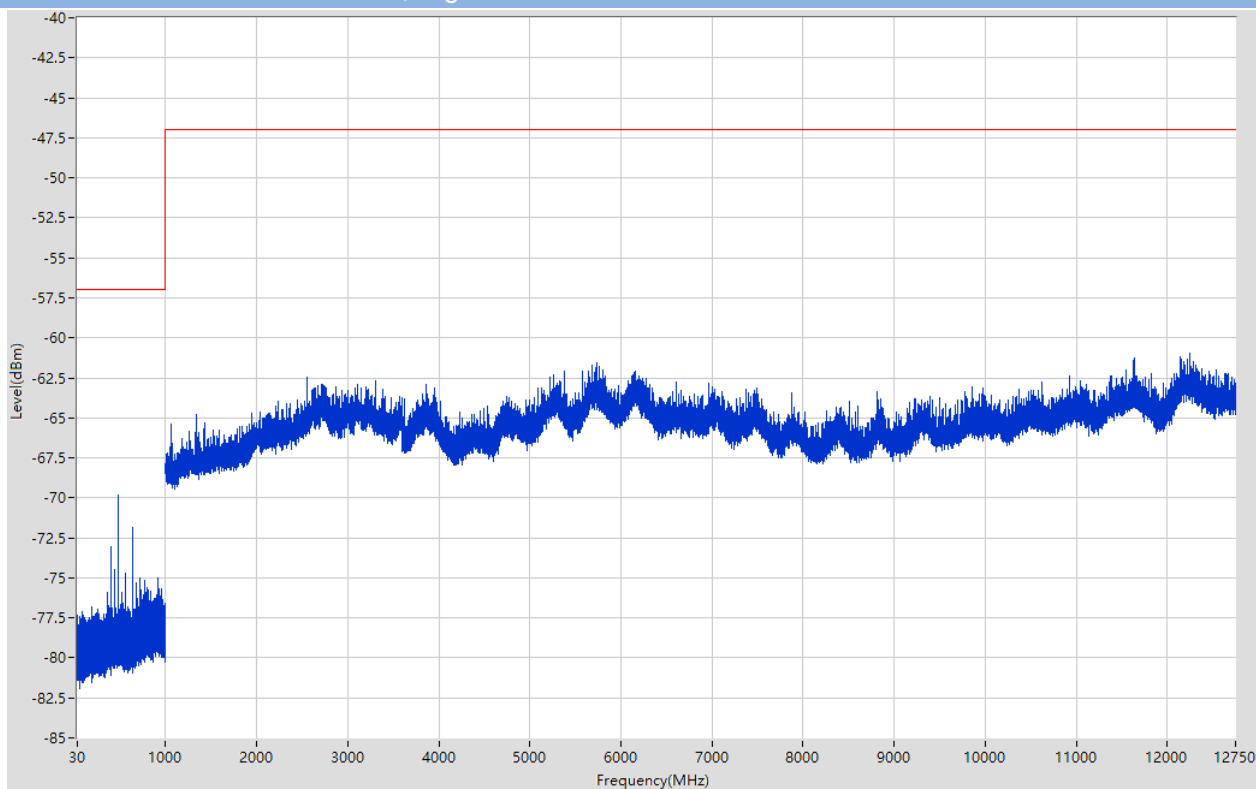
Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	1000	0.1	Peak	800	-62.51	-57	Pass	19401
1000	12750	1	Peak	12310.5	-54.02	-47	Pass	23501

802.11n40 30 MHz to 12.75 GHz, Low channel



Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	1000	0.1	Peak	480	-69.4	-57	Pass	19401
1000	12750	1	Peak	12226.5	-60.98	-47	Pass	23501

802.11n40 30 MHz to 12.75 GHz, High channel

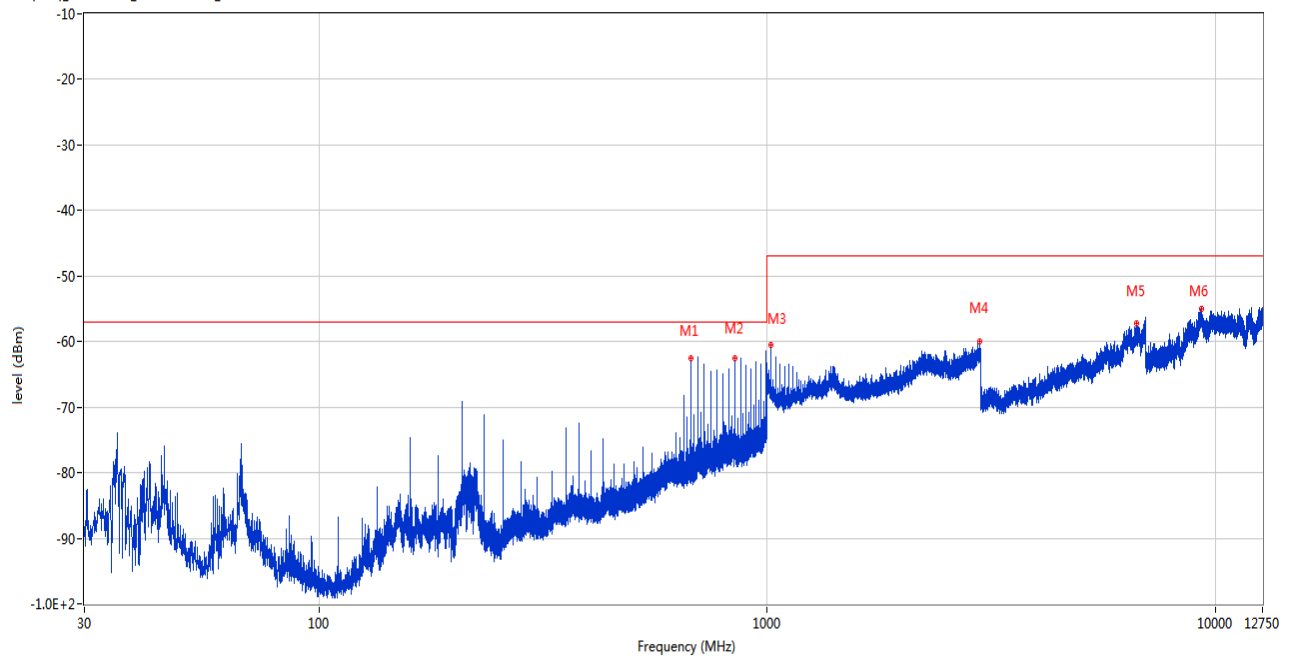


Start Frequency (MHz)	Stop Frequency (MHz)	RBW (MHz)	Detector	Frequency (MHz)	Power (dBm)	Limit (dBm)	Verdict	Sweep Point
30	1000	0.1	Peak	480	-69.86	-57	Pass	19401
1000	12750	1	Peak	12245.5	-60.98	-47	Pass	23501

Cabinet Radiation Test Data

30 MHz to 12.75 GHz, ANT H

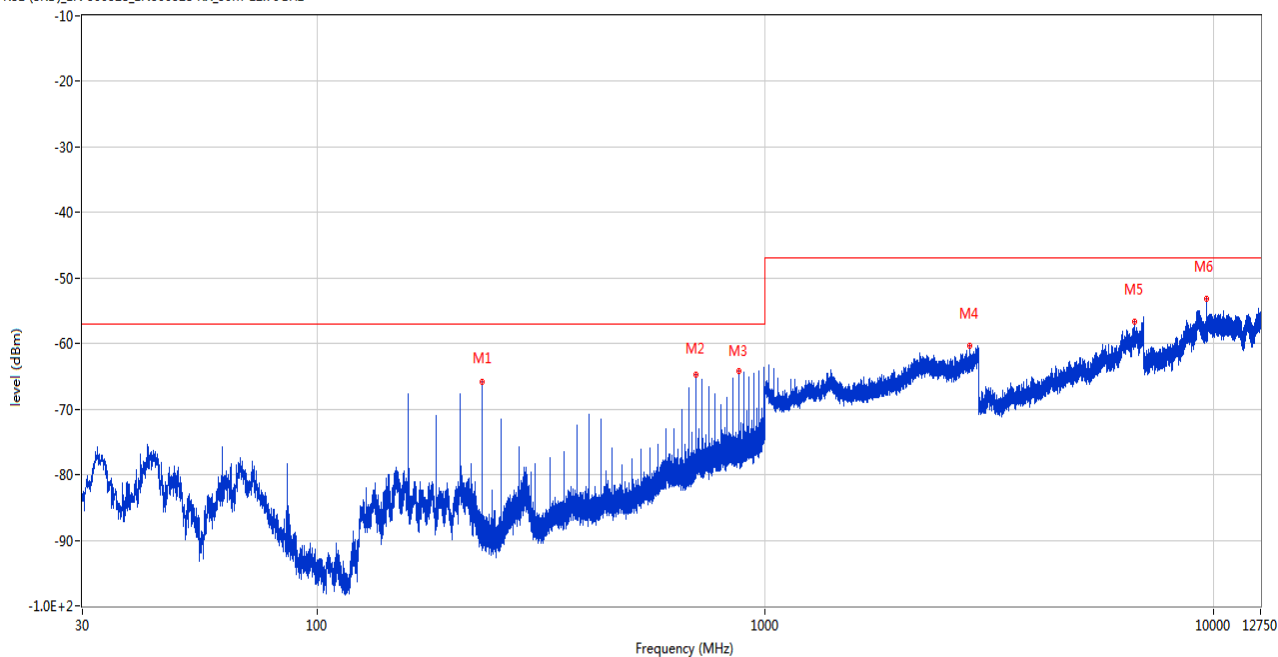
RSE (SRD)_EN 300328_EN300328 RX_30M-12.75GHz



Frequency (MHz)	Result (dBm)	Factor (dB)	PK Limit (dBm)	Over Limit (dB)	Table (o)	ANT	EUT	Verdict
675.874	-62.58	-2.96	-57.0	-5.58	308.00	Horizontal	Horizontal	Pass
847.904	-62.47	1.32	-57.0	-5.47	1.00	Horizontal	Horizontal	Pass
1019.900	-60.51	-4.99	-47.0	-13.51	92.00	Horizontal	Horizontal	Pass
2983.000	-60.02	1.28	-47.0	-13.02	302.00	Horizontal	Horizontal	Pass
6689.400	-57.22	4.24	-47.0	-10.22	319.00	Horizontal	Horizontal	Pass
9333.063	-54.99	9.27	-47.0	-7.99	261.00	Horizontal	Horizontal	Pass

30 MHz to 12.75 GHz, ANT V

RSE (SRD)_EN 300328_EN300328 RX_30M-12.75GHz



Frequency (MHz)	Result (dBm)	Factor (dB)	PK Limit (dBm)	Over Limit (dB)	Table (o)	ANT	EUT	Verdict
233.506	-65.78	-15.33	-57.0	-8.78	67.00	Vertical	Horizontal	Pass
700.464	-64.67	-1.92	-57.0	-7.67	249.00	Vertical	Horizontal	Pass
872.494	-64.21	1.89	-57.0	-7.21	175.00	Vertical	Horizontal	Pass
2858.600	-60.36	0.04	-47.0	-13.36	328.00	Vertical	Horizontal	Pass
6682.000	-56.70	4.07	-47.0	-9.70	-1.00	Vertical	Horizontal	Pass
9648.162	-53.07	8.32	-47.0	-6.07	140.00	Vertical	Horizontal	Pass

A.10 Receiver Blocking

Test Data

Note 1: Blocking signal levels specified are levels in front of the UUT antenna. In case of conducted measurements, the levels corrected by the actual antenna assembly gain.

802.11b:

Receiver Category 1 equipment

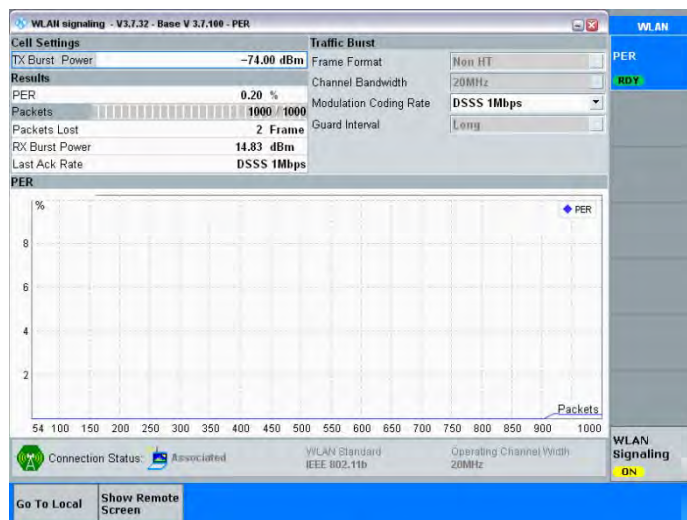
Wanted signal mean power from companion device (dBm)	Blocking signal Frequency (MHz)	Blocking signal power (dBm)	PER Result		Limit	Verdict
			Low channel	High channel		
(-133 dBm + 10 × log ₁₀ (OCBW)) or -68 dBm whichever is less	2 380	-34	0.00%	0.00%	≤10%	Pass
	2 504	-34	0.00%	0.00%		
(-139 dBm + 10 × log ₁₀ (OCBW)) or -74 dBm whichever is less	2 300	-34	0.00%	0.00%		
	2 330	-34	0.00%	0.20%		
	2 360	-34	0.00%	0.00%		
	2 524	-34	0.00%	0.00%		
	2 584	-34	0.00%	0.00%		
	2 674	-34	0.10%	0.00%		

Test Plot (PER)

Note: All the configuration were tested, but only the worst PER Plot were reported in this report.

802.11b: Low Channel

802.11b: High Channel



ANNEX B TEST SETUP PHOTOS

Please refer the document “BL-SZ2140980-AR.PDF”.

ANNEX C EUT EXTERNAL PHOTOS

Please refer the document “BL- SZ2140980-AW.PDF”.

ANNEX D EUT INTERNAL PHOTOS

Please refer the document “BL- SZ2140980-AI.PDF”.

--END OF REPORT--